

BF

385

S15

1889

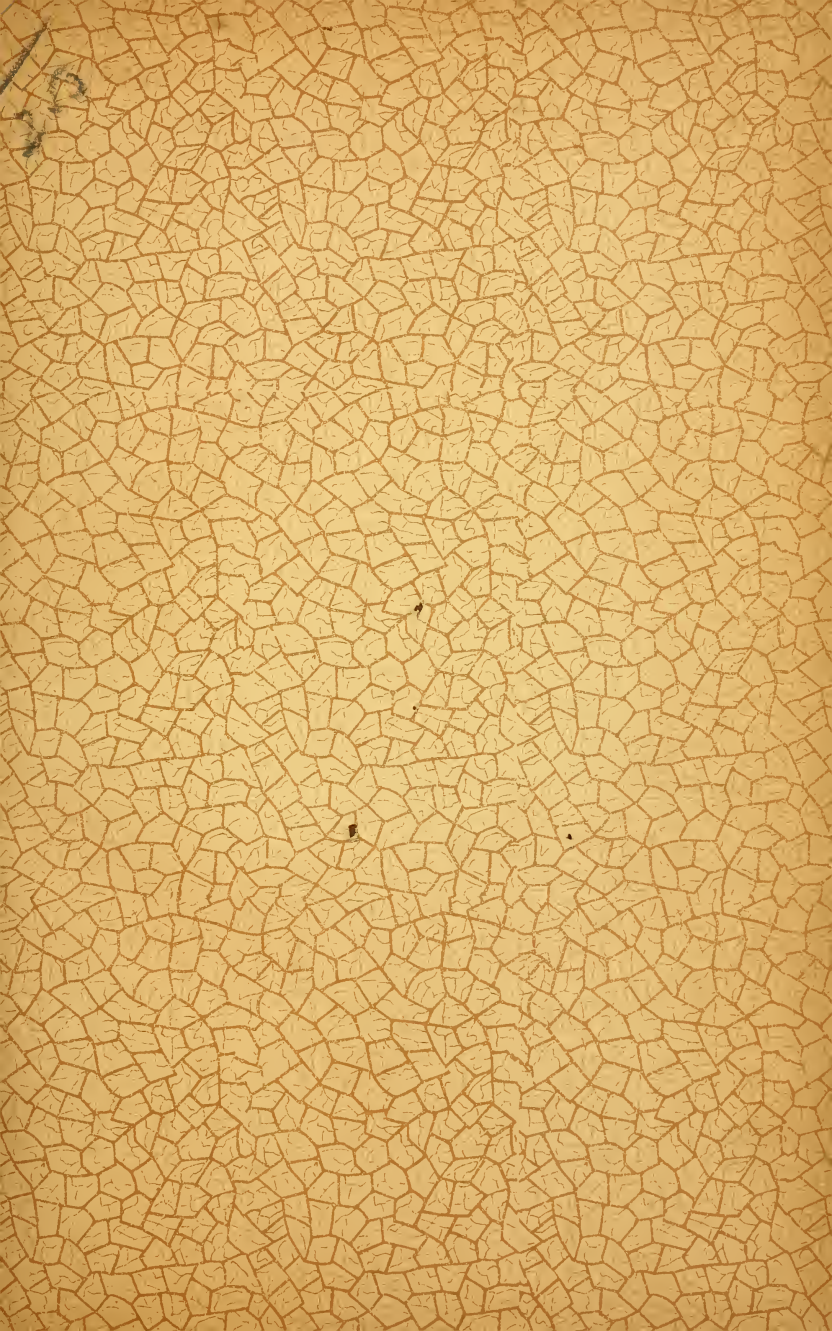
Handwritten in pencil:
Handwritten in gold:
MEMORY

**SAMBROOK'S
PHONOGRAPHIC
SYSTEM.**



in House
at 10 o'clock

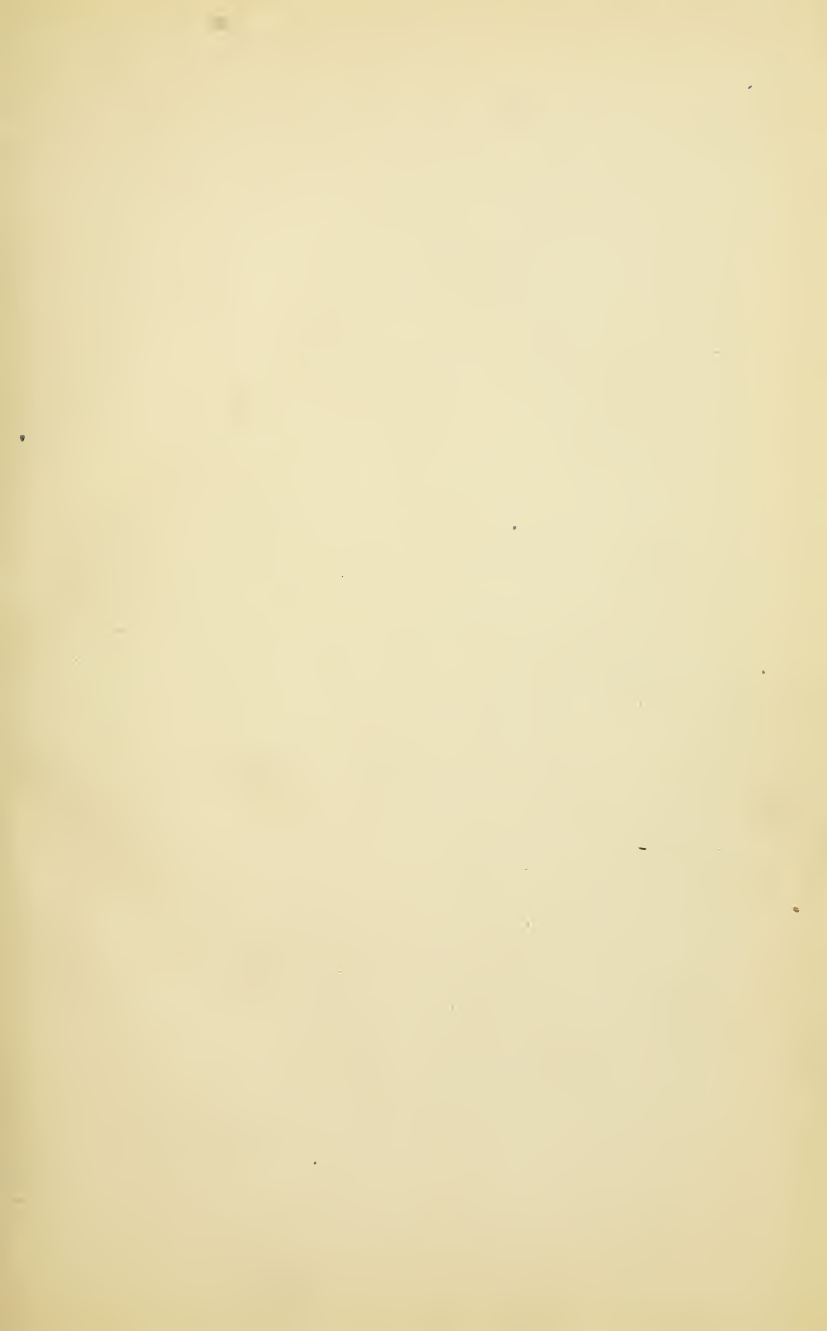
Dec. 2, 1894.



Llanfairpwllgwyngyllgerttobwllgerch -
wynbyllgogerbwllgianttysilio gogogoch.

P. B. L. D. T. H. with short vowels, discarded.

1844. Janus. Fibber - Marcher. Apron. Maniac. Judy
Luhim Organize Fruit. Opus. November. Delude.



Sambrook, John.

SAMBROOK'S
PHONOGRAPHIC SYSTEM
OF
MNEMONICS,

SUMMARY
OF
CLASS TUITION.

Second Edition.

COPYRIGHT.

LINCOLN :
AKRILL, RUDDOCK AND KEYWORTH, PRINTERS.
1889.

COMPLETE COURSE OF LESSONS,

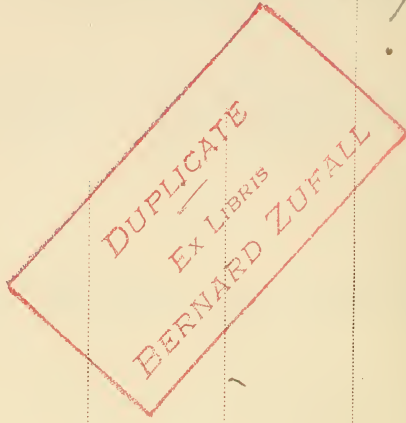
SENT TO

RESIDING AT

ON THE DAY OF

From JOHN SAMBROOK, Teacher of "Memory." STRICTLY AND CONDITIONALLY

PRIVATE, ACCORDING TO THE TERMS OF THE AFORESIGNED STAMPED AGREEMENT.



BF 385
.S15
1889

May 28-41

PL 6Te45-

PREFACE.

THE Author's endeavour in the following pages has not been to write an elaborate treatise on Memory, but to illustrate in the most simple, brief, and practical manner possible, the principles which he has been engaged in teaching for some years past, and which have already won the hearty commendation of many of our distinguished Scholars and Tutors. By these principles many have been greatly aided in their studies and benefitted in many ways, and hundreds of students who never could retain numbers, have been enabled to remember numerical facts without difficulty.

The Author begs from the reader a careful perusal of the work, and if possible a complete study and application of its principles, knowing that if thoroughly mastered and rightly understood, it will prove of great and lasting benefit.

The Author is open to engagements to Societies, Schools, and Institutions to give a course of Lectures further illustrating the principles briefly explained in the following chapters. Terms, etc. can be had on application to J. SAMBROOK, West View Terrace, Lincoln.

CONTENTS.

—:—

| CHAP. | PART I.—NUMBERS. | PAGE |
|-------|--|------|
| 1 | The Nature of Memory and the Mind Powers which influence it .. | 5 |
| 2 | Principles of Sound and Directions for acquiring them | 10 |
| 3 | Preparatory Remarks upon the Principles | 12 |
| 4 | Application of the Principles to the Memory of Numbers .. | 16 |
| 5 | English and General History | 20 |
| | Biblical Narratives—Old Testament | 26 |
| | The Parables of our Lord | 28 |
| | Narratives and Incidents in the Life of our Lord | 29 |
| | Biblical Narratives (continued)—New Testament | 31 |
| | Distances of the principal Places and Cities of the World .. | 32 |
| | The Areas and Populations of Countries | 33 |
| | Chemical Elements, their Atomic Weights and Specific Gravities.. | 34 |
| | Chemical Analysis of the various kinds of Food | 35 |
| | Accession of English Sovereigns from Egbert to Victoria .. | 36 |

| CHAP. | PART II.—IDEAS. | PAGE |
|-------|--|------|
| 1 | The Relation of Words to Ideas | 42 |
| 2 | How to Remember Ideas.. .. | 43 |
| 3 | How to Remember Words | 47 |
| 4 | How to Remember Sermons | 60 |
| 5 | How to Speak without Notes | 62 |
| 6 | How to Remember School Lessons | 67 |
| 7 | How to Learn a New Language | 68 |
| 8 | How to Remember a Book with once reading | 75 |
| 9 | How to Remember Verses | 77 |
| 10 | How to Remember Names | 79 |
| 11 | How to Remember Faces | 82 |
| 12 | Geographical Memory, or, The Memory of Places | 84 |
| 13 | How to Remember Mathematical Formula . . . | 88 |
| 14 | How to Learn Shorthand | 90 |
| 15 | How to Remember Isolated Numbers | 92 |
| 16 | How to Remember the Calendar | 94 |
| 17 | How to Perform Feats of Clairvoyance | 95 |
| 18 | The General Association of Ideas | 96 |
| 19 | The Physical Cultivation of Memory | 99 |
| | Glossary of Words, representing numbers from 1 to 1,000 .. | 105 |

INTRODUCTORY.

CHAPTER I.

The nature of Memory, and the mind powers which influence it.

NOTWITHSTANDING the keenest investigations of Physiologists, Memory still remains a mystery, both with regard to its nature and its operations. The brain has been repeatedly analyzed, and its varied operations studied under every conceivable condition, but the means by which it receives and constantly reproduces its impressions is still a secret, and mere conjecture is all that remains to satisfy the enquiring mind in this field of thought. But if we cannot discover what Memory is or how its operations are performed, we may see what Memory does, and be able to some extent to observe what laws or principles influence or govern its operations, though we cannot see or understand the operations themselves. Thus it is well known that one of the primary principles or laws governing Memory is that of Association. The Memory of itself is able to receive thought in connection with thought, just as it afterwards reproduces them. This is done without any mental effort, without any act of the mind, without any direction of the will; but spontaneously and purely of itself the Memory links together thought with thought, fact with fact, and place with place. The Memory has this power in itself, and cannot but obey it; hence it is sometimes called a law or principle of Memory, a power peculiar to the Memory. But space will not allow us to dwell upon this well-known attribute of Memory, and we therefore pass on to notice other peculiar powers of Memory equally remarkable with that of association. Take for instance its "Universality of influence." This extends over every part of the brain, and not only over man's intellectual powers, but over all his affections, his sensations, influencing every part of his nervous system; for we have not only a Memory of what we think

or what we conceive, but a Memory also of what we feel, what we smell, what we hear, or see. Thus Memory cannot be absolutely localized and referred to any particular organ, but like sunlight it pervades every part of our intellectual hemisphere, imparting to every faculty a mysterious power of resuscitating and living as it were over again every circumstance of thought and feeling.

Another remarkable feature of Memory is its Concentrativeness. Though the influence of Memory is so far extended, yet its power of receiving permanent impressions is very limited, and cannot be perfectly exercised upon many subjects at the same time. The Memory receives the most durable impressions when its powers are concentrated upon the reception of one truth or one idea at a time. If half-a-dozen words or ideas are placed before the Memory at the same time, it will fail to definitely grasp and retain them; but let the same words be placed before the mind by one or two together, and the Memory will easily acquire them without any great mental effort. Hence we see that though the Memory can contain much, and though its treasures may embrace many subjects, yet in the reception of ideas its powers are exceedingly limited, and need to be fully concentrated upon one thing only if the impression is to be a permanent one. See Rule 1, chapter 3, "How to learn words."

Another power peculiar to Memory is its Suggestiveness, the peculiar, mysterious, law by which the recollection of one thing is the cause of our remembering another. This natural suggestiveness of Memory is of the greatest aid in the work of its cultivation, and should afford the greatest encouragement to those whose memories are feeble. To enable the Memory to perform its work of reproducing ideas, the assistance it needs is very small—a touch, a glance, a word or thought, will often recall a whole train of events. See a child, for instance, repeating Poetry: it stops at a verse end, the Memory seems inactive, its operations are for the moment stopped, until the prompter behind whispers but a word, and then the Memory continues to unroll the screen of its impressions. Thus we see, that to enable the Memory to perform its work, and reproduce those treasures which we commit to its charge, it is not necessary for us to

trouble about the whole. All that we have to do is to take care of certain vital suggestive parts of that which we commit to its keeping, and if we occasionally reflect or keep a watch upon these, and are thus able to recall them, the Memory of itself will supply the rest without our caring and keeping watch over the whole.

Having glanced at those qualities which Memory possesses in itself, we shall now briefly notice those mental powers which exist independent of, but which exercise an influence over the Memory, and which, if rightly directed by the will, have a tendency to improve Memory, and assist it in its various operations. The first mental power which we may mention under this head is that of Comparison. By the faculty of judgment we have the power to institute comparisons between different things and ideas, and by this process the Memory is trained to remember the points in which ideas are analogous or opposite. Thus the Memory untrained, as in the case of a child, may see two pictures or representations of anything, and, their general outline being alike, may not recognise or remember any difference. But when the Memory is aided by a trained judgment, as in the case of an adult, the Memory not only recalls the pictures, but through comparing them one with the other it likewise recollects the various particulars in which they are alike, and in which they differ. Thus we see that our powers of comparison, if studiously developed, cannot do otherwise than develop our powers of recollection, especially with regard to minute particulars of facts and things.

Another mental power greatly influencing Memory is that of Reflection. A man who never reflects—who never looks within the storehouse of his Memory—who altogether neglects the acquirements diligently treasured there—may find afterwards, when he does want to use them, that the dust of neglect has obscured them, links in the chain are missing, and the vividness and definiteness of their first appearance has been worn away. The treasures of the mind, like all other treasures, require attention if we would retain them in all their original utility and beauty.

Another power also greatly influencing Memory is that of Combination, the bringing into activity different powers, different senses and feelings—all to be exercised in the

reception of ideas. Thus to remember all that we could about a flower, the most untrained mind would spontaneously and unconsciously employ this combination of different powers in order to effect it. Thus the sense of smell would be employed to remember its fragrance, the sight to remember its beauty, the ear to remember its name, and so in the reception of knowledge respecting everything, the more faculties we bring into operation to receive it, the more inseparably will it be linked in the Memory, and the less likely to be forgotten. This rule not only applies to concrete objects, but to facts and ideas. Ideas even impress our various faculties more extensively than is sometimes supposed. No sooner do the perceptive powers grasp an idea than that idea impresses in some measure our whole nature, exciting our admiration or contempt, and imparting various sensations either pleasurable or otherwise, and thus the more play we give our various faculties in the reception of ideas, the more widely we allow them to impress our whole nature, the more links will Memory have by which to hold them, and the more perfect will the natural and spontaneous association be.

The above remarks lead us to notice another Memory-aiding power, that of Perception, the faculty by which we perceive or grasp all knowledge, and it is now well known that our memory of truths greatly depends upon the conditions under which we first receive them. If during the period of study the student is fatigued or listless, careless and inattentive to the teacher or subject, little will be remembered, and that little soon forgotten. But let the student have a deep interest in the subject, a consciousness of the value of the knowledge to be imparted, a mind with all its faculties fully aroused, and an observation keenly directed upon every particular of the subject. Under these circumstances the perception of knowledge will be perfect, the mind and Memory will be in an impressible, sensitive, condition, and as a rule the knowledge so acquired will be long remembered. Thus the primary consideration for the student and the teacher is the first impression. The utmost care and attention possible should be given to the conditions under which the reception of knowledge takes place. As the Agriculturist prepares the soil for the seed, as the Photo-

grapher prepares his plate for the impression, so should the mind likewise be carefully prepared for the reception of any kind of knowledge. This should be done, in the case of the young especially, by some preliminary conversation, reading or discourse, upon the special branch of knowledge about to be taught them. Its purposes and importance should be fully explained to them, and any particulars respecting the history or characters of the persons who had excelled in that particular branch of knowledge, would greatly stimulate their interest, increase their attention, and thus make the knowledge less isolated, and the memory of it more durable.

With these remarks upon the various mind-powers with which Memory has to do, we introduce the reader to the more practical side of our work, and in describing very briefly and simply the various rules relating to different subjects, the foregoing principles and mental powers enumerated will bear some part more or less in every rule, according to the subject treated and the faculties to be specially exercised.

CHAPTER II.

SAMBROOK'S PHONOGRAPHIC SYSTEM OF MEMORY.

PRINCIPLES OR RULES

BY WHICH THE COMBINATION OF LANGUAGE AND FIGURES IS EFFECTED.

The principle embodied in the following Rules is that of representing figures by those syllables in our language which give a similar sound. This is the principle upon which the Mnemonical Key is composed. In the selection of all the key words the following Rules have been observed; thus the key will always serve as a guide in the selection of longer words when required to represent larger numbers, according to the Rules given below.

It will be observed that five of the Rules are dependent upon the vowel sounds U, E, I, A, O; while the remaining five are purely dependent upon the consonants, being entirely governed by the consonantal sounds terminating the syllables.

Figure 1, word One, is represented by any syllable in which M or N has a blunt sound as in the case when following the strong vowels A, O, U, as in Tom, Son, Can, Fan, Hun, Drum, Gun, Sun, Run, &c.

Figure 9, word Nine, is represented by M or N having a sharp sound when following the weak vowels E, I, as in Limb, Rim, Pin, Pen, Hen, &c., but it must be borne in mind that these Rules respecting the consonants only apply when the vowel in the syllable has not its long open sound, but only when M or N is the principal and terminating sound according to the above examples.

Figure 2, word Two, is represented by any syllable giving the vowel sound of long U or OO, or any similar sound, as in Tune, Fume, Plume, Look, Book, Nook, Shoe, Few, Pew, View, Knew, Draw, You, &c.

Figure 3, word Three, is represented by any syllable giving the vowel sound of long E, as in Tree, Me, See, Be, Flee, Flea, Free, Knee, Key, Glee, Plea, &c., or when sounded with D, as in commanded, mended, ended, &c.

Figure 4, word Four, is represented by syllables sounding R as principal sound, as in Cur, Fur, For, Or, Err, Er, as in Commander, &c.

Figure 5, word Five, is represented by any syllable giving the vowel sound of long I, or the diphthongal sound of OI or OY, as in Boy, Buoy, Soil, Oil, Kite, Light, Night, Time, Lime, Rhyme, Chime, &c.

Figure 6, word Six, is represented by syllables sounding X or K as the principal and terminating sound, as in Mix, Fix, Box, Fox, Brick, Rick, Dock, Lock, Rock, &c.; or by G ending a syllable and sounded hard, as in Egg, Agony.

Figure 7, word Seven, is represented by syllables sounding S, V, or F, as principal and terminating sound, as in Dish, Fish, Lash, Cash, Deaf, Muff, Sieve, Live, Dove, Love, &c.

Figure 8, word Eight, represented by any syllable giving the vowel sound of long A, as in Ray, May, Say, Nay, Lay, Bay; or by any syllable ending with T, in which T is the principal sound, as in Bat, Sat, Pot, Hot, Kit, Hit, &c.

Figure 0 is represented by any syllable giving the vowel sound of long O, as in Doe, Sow, Low, Mow, Mole, Sole, Soul, Coal, Roll, Pole, Home, Lone, Moan, &c.

As will be seen, these Rules only have respect to the sounds of words, not the spelling; as the letter I may be taken to represent 3 when it is sounded short, as in gratitude; so when I has a full sound in connection with N, as in Line, Nine, it may be taken to represent 9 as it exactly sounds it; also, when O is sounded with R, as in Dore, Sore, More, Four, it may likewise be taken to represent 4; in like manner the broad sound of A as in Pa, Ma, may represent 4, thus the words Russia, Prussia, would indicate 74, like the word Usher.

When two consonants terminate a syllable, and both are sounded, the first consonant only must be taken to indicate the figure, as in And, Ant, Mong, Monk—all signifying one; as also in Mart, Cart, Turn, Burn, Hard, Bard, Turk, Firk—all signifying four; in like manner the terminal *ing* must always be taken to represent 9.

COPYRIGHT.

Directions for acquiring the Rules.

The Rules must not be learned by heart under any circumstances.

First read the Rules carefully, observing the fact, that as they refer to ten numerals, so they deal with ten different classes of sounds.

Then read again each Rule, pronouncing aloud the examples along with the sound of the numeral, thus—*tom one, sun one, can one, fan one*, as in the first Rule

This must be done until the pupil thoroughly comprehends the class of sounds referred to, and can readily distinguish them whenever he hears them, and is able to select them himself from any miscellaneous paper or page of a book he may have at hand.

The Mnemonical key printed at the end of Chapter 3, Part II., and the Glossary of Words, will afford the Pupil ample scope for testing his knowledge of the sounds. In doing this care must be taken to pronounce every word aloud and every syllable distinct, making a pause between each syllable.

In reading over the Rules the second time, be careful that one Rule is thoroughly grasped and understood, before proceeding to study another.

The Rules can never be mastered by Memory, that is, by mere repetition; they can only be acquired by the judgment comparing sound with sound, and observing the similarities and distinctions referred to in the Rules.

In using these principles to remember number names, it will be seen that one syllable stands for one figure, two syllables for two figures, three syllables for three figures, thus—*de 3, delude 32, delusion 321*.

Syllables ending in *p, b, l, d*, and *th* are not included in the Rules, and can not be used except when sounded with a long vowel. Thus the sounds—*top, tib, til, ted*, can not be used, because they bear no similarity to the sound of any figure, but when combined with long vowels they do, thus—*type, tribe, tile, tied*, *tithe*, all represent 5, and in like manner the syllables—*tube, tool, tude, tooth*, all represent 2, because the primary sound in each syllable is the primary sound of the numeral represented.

CHAPTER III.

Preparatory Remarks upon the Principles.

IT will be seen from the Rules that the principle of the Figure method is entirely Phonographical, depending purely upon sound, with one or two exceptions. Namely: when syllables sounded almost alike are spelled differently, as in the words *Pestilence* and *Ambulance*; or in the words *Student* and *Pheasant*. In this case the spelling must always decide it. Where the (n) is sounded with (e) it must be taken to represent 9; and where (n) is sounded with (a) it must be taken for 1.

The Rules comprise ten different classes of sounds, entirely distinct from each other, and these are used to represent our ten numeral Figures. The more the Rules are studied the more evident it will be that the relationship established between Figures and Language is entirely natural; and that between the sound of each numeral and the class of sounds taken to represent it, there is a natural similarity, which the judgment will always readily perceive, when the mind has become familiar with the principles.

It should be borne in mind that when the vowel in any syllable has not its long open sound, the signification must be determined entirely by the sound of the consonant which is most fully expressed in the syllable; as in the word (Live) the vowel *i* is not fully sounded; but the consonant *v* is the sound in the syllable most fully expressed, and the word (Live) would therefore stand for 7.

It should also be borne in mind in studying the Rules that the terminating sound of syllables should always be regarded as their principal sound, when no vowel is fully sounded in the syllable; but whenever a vowel has its full sound in a syllable, the Figure must be determined by the vowel only, and not in any way influenced by the consonants. Take for instance the word (Pike). In this word the *k* is sounded, and if the vowel *i* had not its full sound the word would stand for 6, for it would be pronounced as

Pick; but the vowel *i* being fully sounded it must therefore represent 5 according to the Rules. So with the terminating sound of syllables. In the word (Fit) two consonants are plainly sounded, F and T; but the terminating sound must always decide it, and the word (Fit) therefore signifies 8.

It is desirable that the Rules should be studied in close connection with the Mnemonical key, and for a time at least with the key always, if possible, before you; because the Rules or Principles are embodied in the key. Every number in the key is represented by a word formed according to the Rules; and in like manner every key-word according to the Rules sounds its own number. If you look along the line of words in the key from number 1 to 91, it will be seen that in the terminating syllable of every word the figure (one) is sounded and represented according to the classification of the Rules. So in the next line of words from 2 to 92, the terminating syllable of each word shews the varied representations of the figure 2. The next from 3 to 93 gives the different representations of the figure 3. So every line of key-words will serve as a guide in shewing the different classes of sounds in our language to be taken to represent each numeral. It will be seen that in each line of words in the key, almost every terminating syllable in the line is differently spelled; yet between each there is a similarity in their principal sounds which will shew the classification of the Rules to be justified and natural though they might appear arbitrary at first sight.

It is advisable for the Student to familiarise himself with pronouncing numerals by themselves instead of sounding them in combined numbers, as such a practise is a great help in mastering the principles. For it will be seen by looking at the Mnemonical key that the key-words do not sound the numbers as (twelve, twenty, thirty, forty, &c.); but they sound the figures separately as 1.2 by Canoe, 2.0 by Crusoe, 3.0 by Negro, 3.5 by Beehive, 6 6 by Pickaxe, &c. This principle embodied in the key will also prove a great assistance in learning the key, when it is necessary to learn it, as is the case in the Lesson upon Ideas; at least it will prevent the key, when it is once learned, from being easily forgotten, and it will also ensure a readiness of recollection and an ability instantly to recall distinct ideas

connected with it, which no other Mnemonical key will allow. For a Student using any other key not based upon this principle, wishing to call to mind and instantly remember the number of any key-word without reflection is almost impossible. If asked to do so, he would probably have to think of what word went before it, or what word came after or repeat a few words in connection with it; but if any Student who has thoroughly learned this key, is asked to give the number of any word, the answer would be given instantly. For should the number of the word Beehive be asked for, the answer would be shewn by the word itself to be—three five. And this is done without any effort of recollection, because the answer is not dependent upon the Memory, but upon the knowledge of the principles by which every key-word is made to suggest its number, and likewise every number to suggest the word.

It is strictly necessary, as this system is based upon a principle of sound, that the Principles should be practised in an audible manner. The Student will find it a great assistance to frequently test himself with the key by selecting different key-words, and without seeing the number in connection with them endeavour to tell what figures they signify, by carefully pronouncing them, distinctly sounding each syllable by itself. It will be remembered this is the method adopted in the Classes, in order to test the Student's knowledge of the Principles.

Sometimes it may happen that a Student's rules of pronunciation may slightly differ or appear to differ in one or two particular points, from those acknowledged in the accompanying Rules; but it will be seen that the method easily admits of a little variation in this respect to suit the custom of any pupil, without in the least affecting the great principles of the system.

In translating figures into words, treated of in the Second Lesson, only those sounds must be employed which are mentioned or referred to in the Rules. There are sounds in our language which are not embodied in the Rules, because they do not contain in their pronunciation a similarity to the sound of any numeral.

It will be observed from the Rules that in connection with this System only words or syllables are taken to repre-

sent figures ; and this is one of the many notable features of its superiority over other systems based upon a combination of letters and figures. Those students acquainted with Dr. Grey's or Feinagle's Systems, or any of the innumerable modifications of those Systems, will readily perceive its value in this respect. Passing over the difficulty of such Methods in forming letters into words, which has been too widely felt to need any comment, it will be readily seen that letters when used in a distinct and isolated manner are as difficult to remember as figures, even if this invaluable principle of sound were also employed, which however is not the case, but even by the association of single letters with figures the difficulties would have been the same. Suppose for instance that the letter *u* be taken to represent 2 as they are alike in sound and their relation in this respect is obvious. Still the letter would be as difficult to remember as the figure, because it contains no idea and is void of the properties of association. But now instead of taking a letter which has a similar sound, work according to these principles by taking a word which has a similar sound. Suppose for instance to represent 2 we take the word (Shoe) and by doing so we instantly secure an idea for the mind to lay hold of, and the word (Shoe) would as readily suggest the figure 2 by its sound as the letter (*u*) would ; but while the letter would be difficult to remember, the word would be very easy because it contains an idea or picture, and has therefore the property of association. This is why, in connection with this System, letters are not used in a distinct and isolated manner ; but instead words or syllables only are used whose principal sounds resemble the sounds of the numerals they are taken to represent.

CHAPTER IV.

Application of Principles to the Memory of Numbers.

The application must always be two-fold, both Mental and Verbal. In associating words signifying Figures with any Fact or event, the two should be so combined that in the recollection of them the mind will have something to see or to think of, the Tongue something to repeat, and the Ear something to hear. Thus facts will be fastened upon the Memory by a threefold connection which we know "is not quickly broken."

When it is desirable to remember Figures expressing some particular fact or event, such as the Distance of a Place or the Date of a Discovery or Invention, first the Figures must be translated into a word or words and then connected with the Fact, by a Memory Sentence, or Association, embodying a mental picture or some striking idea relating to it. The sentence must be as short as possible and so formed as to be entirely dependent upon the words expressing the Date. If this is done there will not be any necessity to remember the verbal order of the sentence, for if the idea of the sentence is made to hinge upon the Date-word, the recollection of the idea will be sufficient to bring the Date-word to mind.

Take one or two examples from English History. First example: "Agricola sails round the British Isles and proves their Insularity," A.D. 84. The object is to remember the Date 84 in connection with this event. First select a word which will express the Figures 84 according to the Rules. If the key is consulted it will greatly assist you. But do not always use the Key-words, even if suitable, because such a course would in time produce confusion. But if the Key-word is not suitable, pronounce the key-word repeatedly to yourself until it suggests a different word, but one expressing the same Figures. In this instance, instead of taking the Key-word for 84, which is (Grater), we take the word (Greater), which expresses the same Figures, but which gives an entirely different meaning. We now connect the word (Greater) with the great Geographical Problem which Agricola solved as to whether

Britain was an Island. Association: (For his sail round Britain, Agricola was the greater).

8 4

Now it will be seen that there is no necessity to remember this sentence verbatim or in a certain order. If the idea is remembered that Agricola was *greater* for his Discovery, it is sufficient to bring the word expressing the Date to mind. Thus it will be seen that to remember Dates by this Method the Natural Memory is in no way burdened, for the recollection of Dates simply resolves itself into the recollection of interesting ideas.

Take another example. St. Patrick first preaches the Gospel in Ireland, A.D. 432, expressed in the word Fortitude. Association: (St. Patrick for his Mission needed great fortitude).

4 3 2

The above illustrations come under the first Rule of Application. We shall now proceed to the Second.

There are but two Rules of Application.

THE FIRST RULE

Consists in selecting a long word the syllables of which express the Date complete in itself.

THE SECOND RULE

Consists in using a number of words—from the key or otherwise—to express the Date, when it cannot be expressed by one; and to prevent any possibility of confusion, so form the Memory Sentence or Association that the Date-words are always the last in the sentence.

Take the following examples by the Second Rule of Application.

“Death of Rufus in the New Forest,” 1100. You take the 100 only. Association: (Rufus was killed by an unknown foe.)

1 0 0

The last three syllables give the Date.

Magna Charter signed 215. Association: (Magna Charter was a new won prize.)

2 1 5

The Spanish Armada 588. Association: (The Armada carried many a Pilot's Hat.)

5 8 8

It may here be noted that when the *s* comes in at the end of a syllable simply indicating the plural or the possessive case, and not constituting a distinct sound, it must always be dropped as of no significance except to complete the sense, as in the words *Pilot's Hat*.

This Second Rule of Application is more pliable and more frequently used than the first Rule. It will also admit of application by Rhyme if desirable. Take for example the *Universal Deluge*, 2348 B.C.

MEMORY VERSE.

The torrents descended,
The sea bounds gave way,
And enveloped in floods
The Universe lay.

2 3 4 8

It will be seen that in fixing in mind the above dates from English History, we have omitted the thousand only using the last three figures; and the same course may be always safely followed, as one with any knowledge of History at all will be able to fix a historical event to a 1000 years, and will know that the Destruction of the Armada did not happen in the 6th Century but in the 16th.

GEOGRAPHY.

The application of the principles to Geographical and all other numerical facts must be the same, simply combining the Figures and the Fact together by a striking idea.

Suppose you wish to remember the height of a mountain or the length of a river. You search the Glossary at the end of the book for words which will express the numbers, and then associate as before. Take for example the height of Snowdon, 3,590 feet. Association: Snowdon, seelies in snow.

3 5 9 0

Take another example. Ben Nevis in Scotland, 4,400 feet. Association: Ben never murmurs oh no.

4 4 0 0

If is desired only to remember the hundreds and thousands of feet, then the combination is still easier. Take for example, Mount Carmel, 1,500 feet. Association: The sea touches Carmel, one side.

1 5

Same with the length of rivers. Take the Rhine for example, 780 miles. Association : The Rhine down many a cascade flows.

7 8 0

To give the hundreds of miles only, is easily done. Take the Volga for example, 2,200 miles. Association : Vulgar Zulu.

2 2

Should the student have occasion to remember figures in a form not specially treated of in this or the succeeding chapter, it is expected that he will use his own ingenuity in endeavouring to perceive a method of application ; as many have used the principles to remember numbers in connection with their own daily occupation or profession, and have derived great assistance from them. Suppose, for instance, it is desired to remember a person's address, or the number of his house. You select a word expressing the number, and associate it with his name. To remember the Ledger page also, where to find any person's account, may be accomplished in the same way. With regard to the recollection of accounts or sums of money, as Pounds, Shillings, and Pence—one word should be taken to represent the pounds, another word for the shillings, and another for the pence, and the three combined in their proper order.

In the extended list of applications which make up the succeeding chapter, it is not intended that the Student shall invariably confine himself to the use of any Association. If a better one suggests itself, let him by all means use it.

The Mnemonical Associations or sentences should not be learned by heart, as already shown in the second paragraph of this chapter. If the main idea hanging upon the date words be remembered, it will be sufficient.

The Author has been reluctantly compelled to leave out many Associations which he had prepared for fear of making the book unnecessarily large and cumbersome ; but if the Student has to fix in mind any numerical facts or dates not included, the following will suffice to shew him every variety of Association, and by the aid of the Glossary of Words expressing numbers, given at the end of the book, he will have little difficulty in forming Associations for himself.

Primary Events in English and General History

ROMAN PERIOD.

| EVENT. | DATE. | ASSOCIATION. |
|--|------------|---|
| Julius Cæsar lands in Britain | B.C. 55... | Cæsar landed at <u>high-tide</u> . |
| The Invasion of Claudius | A.D. 43... | Claudius came over in a <u>wherry</u> . |
| Caractacus carried in chains to Rome | ... 51 .. | Caractacus chained like a <u>lion</u> . |
| St. Paul beheaded at Rome | ... 67... | Paul ceased to exist. |
| Jerusalem destroyed by Titus | ... 70... | Titus pulled down the Temple's last stone. |
| Agricola sails round Britain | ... 84 .. | Agricola sails round in a boat with <u>eight oars</u> . |
| Hadrian completes the building of his wall | ... 121... | Hadrian brings his wall to a <u>conclusion</u> . |
| Didius Julian purchases the Roman Empire | ... 193... | Didius Julian's purse run <u>empty</u> . |
| London taken and sacked by the Scots | ... 367... | The Scots robbed London and were followed by no detective. |

Rome reduced by Alaric, king of the Goths
The Romans depart from Britain
St. Patrick first preaches the Gospel in Ireland...

... 410... } The Romans are gone home,
... 410... } For there is Alaric at Rome.

St. Patrick for his mission needed great fortitude.

SAXON PERIOD.

The Saxons land in Britain
The Latin language ceases to be spoken in Italy...
Augustine's mission to England
The flight of Mahomet from Mecca
Library at Alexandria burned
The Saracens overrun Spain

... 449... The Saxons came murdering.
... 580... Their aversion to Latin Italian boys make known.
... 597... Augustine's monks did dress in robes as stiff
as isinglass.
... 622... Mahomet on legs soon flew.
... 640... More books burned than would fill a big barrow.
... 715... With the rage of Arabs Spain is on fire.

| EVENT. | DATE. | ASSOCIATION. |
|--------------------------------------|-----------|-------------------------------------|
| Charlemagne made Emperor of the West | ...787 .. | Charlemagne was rather crustaceous. |
| University of Oxford founded | ...886... | Oxford where drowns a stray ox. |
| University of Cambridge founded | ...915 .. | Cambridge came in one night. |

EVENTS SINCE THE NORMAN CONQUEST.

In the following dates the thousand must always be added, the last three figures only being indicated by the association.

| | | |
|--|-------------|-------------------------------------|
| The first Crusade | ...1096... | Crews aid minnies. |
| Paper first made from rags | ...1100... | Paper from old clothes. |
| The Emperor Frederick excommunicated | ...1158... | Frederick, not contrite yet. |
| The Cardinals begin to choose the Popes | ...1160... | The Cardinals choose one big pope. |
| Thomas a Becket murdered | ...1171... | Becket murdered without compassion. |
| Henry II. does penance at Becket's tomb | ...1174... | Becket's tomb, one is there. |
| The Inquisition established at Rome | ...1204 .. | Inquisitors blue robes wore. |
| Magna Charter signed | ...1215... | Magna Charter was a new won prize. |
| The first Prince of Wales made | ...1284... | They print a Wales newspaper. |
| Marco Polo writes his travels | ...1289.... | Marco's book written. |
| The Mariner's compass invented | ...1302.. | A compass guides the boat through. |
| Death of Dante, the poet | ...1316... | Dante dies pedantic. |
| Gunpowder invented | ...1340... | Gunpowder useful as a wheelbarrow. |
| Death of Chaucer, the poet | ...1400... | Chaucer goes home. |
| Lollard burnt at Cologne | ...1351... | Lollard to the fire bids defiance. |
| Shaving the beard begins in England | ...1357... | A man to shave must be decisive. |
| Windsor Castle built | ...1364 .. | A castle we erect there. |
| Clocks first made to strike | ...1368... | The clock shakes. |
| Wycliffe translates the Bible into English | ...1384... | Wycliffe left the Bible the better. |

| EVENT. | DATE. | ASSOCIATION. |
|---|------------|--------------------------------------|
| Wat Tyler's Rebellion | ...1381... | Wat tiles the station. |
| Bombshells invented | ...1388... | A bomb the <u>teapot hit</u> . |
| Battle of Cressy and cannon first used | ...1346... | By a cannon, cresses we dare pick. |
| Execution of Lord Cobham | .. 1417... | Cobham's sermons last. |
| Joan of Arc burnt | ...1431... | Joan burnt for treason. |
| The art of Printing invented | ...1440... | The art first known. |
| Wars of the Roses begin by the battle of Wakefield | ...1460... | In a field where burdock grows. |
| Huss and Jerome burned at Constance | ...1416... | Huss and Jerome burned on sticks. |
| James I. of Scotland assassinated | ...1437... | James' murderers hurry past. |
| Duke of Clarence drowned in a cask of wine | ...1478... | Clarence rinsed a large cask out. |
| Michael Angelo, the sculptor, born | ...1474... | Angelo carved the choristers. |
| Watches first made | ...1477... | Watches at first were massive. |
| Raphael, the painter, born | ...1483... | Raphael born painted. |
| Columbus discovers America | ...1492... | A merry car in view. |
| Luther begins the Reformation | ...1517... | Luther a lion was. |
| Soap first made in England | ...1524... | Soap and a wide ewer. |
| Dissolution of Monasteries in England | ...1539... | Monks plundered while eating. |
| Pins first used by ladies instead of skewers | ...1543 | Pins were never made of ivory. |
| Beer 6d. per cask and bread four loaves for a penny | ...1547... | Cheap beer made them boisterous. |
| The Council of Trent | ...1546... | At Trent mitres mix. |
| The Liturgy composed and read in the churches | ...1548... | The Liturgy boys parrot. |
| Massacre of St. Bartholomew | .. 1572... | Bartholomew, a knife pushed through. |
| Stockings first knit in England | ...1561... | Stockings made nice legs run. |

The Pope excommunicates Queen Elizabeth
 Drake sails round the world
 Starveling first taught in England
 Discovery of the Gunpowder plot
 Shakespeare born
 Destruction of the Spanish Armada
 Translation of the Bible commenced
 Barometer invented by Torricelli
 Circulation of the blood discovered by Harvey
 The Book of Sports appointed to be read in Churches
 Uniformity Act passed
 Magic Lanterns invented by Kircher
 The plague rages in London
 The great fire of London
 Death of Milton
 Bank of England founded
 Gibraltar taken by the English
 Pianofortes invented
 Sir Christopher Wren the architect of St. Paul, dies
 Sir Isaac Newton dies
 Eddystone Lighthouse blown down
 Sewing machines invented
 The great earthquake at Lisbon

... 1570... The Pope sent her a microscope.
 ... 1577... Drake's righteousness went round the world.
 ... 1564... They make linen twice thicker.
 ... 1605.. Fawkes was cruel as a crocodile.
 ... 1564... Shakespeare, that nice actor.
 .. 1588... The Armada carried many a Pilot's hat.
 ... 1604... The old Bible kicked over.
 ... 1626... Torry chilly begs two sticks.
 ... 1628... Harvey speculates.
 . 1617... Sport in Church accomplished.
 ... 1662... It made pastor's picnics few.
 ... 1665 ... } By lantern pictures the plague we recognise.
 ... 1665... }
 ... 1666... The fire goes crack, crack, crack.
 ... 1674... Milton left no successor.
 .. 1694... The Bank as old as Grandmother's rocking-chair.
 ... 1704 .. To Gibraltar they pass over.
 ... 1710 .. Pianoforte lessons go.
 ... 1723... Wren's last duty.
 ... 1728 .. Newton is new yet.
 ... 1703... Eddystone see.
 ... 1755... } While sewing, Lisbon sank out of my sight.
 ... 1755... }

EVENT.

British Museum established
 Gas first made from coal
 London Printers arrested for publishing the
 Parliamentary debates
 Poland is dismembered
 First Life Assurance Society established
 The first American Congress
 Haydn produces the Oratorio of the Creation
 Captain Cook killed on his third voyage round
 the world
 Handel, the composer, dies
 First Sunday School opened by Robert Raikes
 Cartwright invents the Power Loom
 First Steamboat made by Symmington
 Dr. Johnson dies
 The French Revolution begins
 Mozart dies
 Louis XVI., king of France, guillotined
 Burns, the Scotch poet, died
 Bank of England stopped payment
 Battle of the Nile
 Legislative Union of England and Ireland
 Steel pens first made
 Death of Nelson

DATE.

ASSOCIATION.

...1753... Where we the best sights see.
 ...1739... Gas Companies' first dividend.
 ...1771... London Printers print discussions.
 ...1772... Poland has lost rule.
 ...1772... Premiums at Christmas due.
 ...1774... Regarded as an International trespasser.
 ...1778... Haydn has his day.
 ...1779... Cook killed by a savage assassin.
 ...1759... The Messiah is living, but Handel is dying.
 ...1781... Where no boy had his hat on
 ...1784... Cartwright rights the dressmakers.
 1788... The first steamboat we covet it.
 ...1784... Dr. Johnson meets his Maker.
 ...1789... The Revolution there was no mistaking.
 ...1792... Mozart is entombed.
 ...1793... Louis the guillotine ascended.
 ...1796... Burns in his coffin fixed
 ...1797... Bank of England suspends cash.
 ...1798... The Nile fought on a washing day.
 ...1801... Ireland sits on an ottoman.
 ...1803... Steel pens not so cheap.
 ...1805... The Frenchman's great foe dies.

| EVENT. | DATE. | ASSOCIATION. |
|---|------------|--|
| Retreat and death of Sir John Moore | ...1809... | On Corrunna's shore Sir John lay moaning. |
| Marriage of Napoleon | ...1810... | Married with a flower in his buttonhole. |
| Stephenson makes his first locomotive | ...1814... | The first locomotive shown by a stationer. |
| Battle of Waterloo | ...1815... | Waterloo fought about Whitsuntide. |
| The first Railway opened | ...1825... | Rail the road. |
| The first Reform Bill passed | ...1832... | It gave the people wider latitude. |
| Slavery abolished | ...1833... | Slaves set at liberty after much strategy. |
| The Penny Post established | ...1840... | Penny letters go. |
| The Prince of Wales born | ...1841... | The Prince wails an utterance. |
| Ross's great Telescope completed | ...1844... | Ross's telescope brought him many a flatterer. |
| Franklin's last voyage in the <i>Erabus</i> and <i>Terror</i> | ...1844... | Franklin sailed in a terror. |
| The Corn Laws repealed | ...1846... | Through the clack of many a chatterbox. |
| Famine in Ireland | ...1847... | Famine in all its bitterness. |
| Chloroform invented | ...1847... | Chloroform would stupefy a satirist. |
| The Chartist riots | ...1848... | Chartist's riot on a Saturday. |
| Gold discovered in Australia | ...1851... | Gold made many a lame boy run. |
| Russian War begins | ...1854... | Russia found creeping like a great spider. |
| Indian Mutiny begins | ...1857... | Those mutes they fight us. |
| The Great Eastern built | ...1857... | The ship a great size was. |
| American Civil War begins | ...1861... | A merry war is a fiction. |
| The Atlantic Cable laid | ...1866... | O'er the Atlantic a clock ticks. |
| Second Reform Bill passed | ...1867... | Second Reform Bill was more attractive. |
| Suez Canal opened | ...1869... | The Canal all ships is attracting. |
| Ashantee War begins | ...1873... | Where we kill a king named Coffee. |

Biblical Narratives.—Old Testament.

(WHERE RECORDED.)

In the following list of Biblical Narratives, it will be noticed that only the primary events of Scripture are given, or those which have a train of minor incidents connected with them, as in the case of Joseph, whose history occupies twelve chapters, but we have only mentioned one in order to remind the Student of the locality in the Book of *Genesis* where the others may be found.

Where only one narrative is taken from a book, the name of the book is suggested in the association, as in the "Death of Samson," *Judges* vi., thus: "Samson judged frantic"; but in other cases the Student's general knowledge of the Bible should enable him to know the book from which a train of incidents are taken.

| NARRATIVE. | BOOK. CHAP. | ASSOCIATION. |
|----------------------------|-------------------------|----------------------------------|
| Noah builds the Ark | ... <i>Genesis</i> 6... | Noah plies his axe. |
| Confusion of tongues | ... " 11... | Confusion common. |
| Destruction of Sodom | ... " 19 .. | Sodom consigned. |
| Vision of Jacob's ladder | ... " 28.... | Jacob's ladder looked straight. |
| Joseph in prison | ... " 39.... | Joseph in prison weeping. |
| Moses at the burning bush | ... <i>Exodus</i> 3... | Moses the bush sees. |
| The first plague in Egypt | ... " 7... | The first plague killed the fish |
| The Red Sea divided | ... " 14... | The Red Sea parts asunder. |
| The Ten Commandments given | ... " 20... | The Commandments few know. |

| | |
|----------------------------------|--|
| Balaam reproved by his ass | ... <i>Numbers</i> 22...Numbered servants Balaam took two. |
| Death of Samson | ... <i>Judges</i> 16.. Samson judged frantic. |
| The call of Samuel | ...1 <i>Samuel</i> 3...Samuel sleeps. |
| Dagon falls before the ark | ... " " 5...There Dagon lies. |
| Saul seeks his father's asses | ... " " 9...Saul cannot find. |
| David and Goliath | ... " " 17...Goliath is punished. |
| The witch of Endor | ... " " 28...The witch flew out. |
| Nathan's parable of the Ewe Lamb | .. 2 <i>Samuel</i> 12...Nathan's one ewe. |
| David numbers the people | ... " " 24 ..But finds them no fewer. |
| Solomon's dream at Gibeon | ...1 <i>Kings</i> 3 ..Solomon dreams. |
| Dedication of the Temple | ... " " 8 ..Solomon prays. |
| Queen of Sheba's visit | ... " " 10...The Queen has gone home. |
| Jeroboam's hand withered | ... " " 13...Jeroboam's hand weak. |
| Elijah fed by ravens | ... " " 17...The ravens want flesh. |
| Israel at Mount Carmel | ... " " 18...Carnel's summit. |
| Naboth's Vineyard | ... " " 21...Ahab wanted a vineyard and took one. |
| Elijah's translation | ...2 <i>Kings</i> 2...Elijah flew. |
| Naaman and the captive maid | ... " " 5 ..Naaman's wife. |
| Sennacherib's army destroyed | ... " " 19...Sennacherib condemned. |

The Parables of our Lord.

The parables are mostly taken from the two fullest records, those of *Matthew* and *Luke*. The parables from *Luke* are distinguished from those of *Matthew* by every association beginning with L, and in most cases with the Evangelist's name, or the word "look" to suggest it.

| PARABLE. | BOOK. | CHAP. | ASSOCIATION. |
|---------------------------|--------------------|-------|------------------------------------|
| The two debtors | ... <i>Luke</i> | 7... | Luke two debtors has. |
| Barren fig tree | ... " | 13... | Luke saw no figs on tree. |
| The good Samaritan | ... " | 10... | Look, the Samaritan has gone home. |
| Lost piece of silver | ... " | 15.. | Look for the silver, some light. |
| Importunate widow | ... " | 18.. | Luke's widow is importunate. |
| Marriage feast | ... " | 14.. | Luke married Hannah. |
| Prodigal Son | ... " | 15.. | Look at the Prodigal's one eye. |
| Pharisee and publican | ... " | 18... | Look, the publican prays. |
| The rich man and Lazarus | ... " | 16 | Lazarus the angels conduct. |
| The unfaithful steward | ... " | 16... | Look, how the steward concocts. |
| The grain of mustard seed | ... <i>Matthew</i> | 13... | Mustard and seed. |
| The hidden treasure | ... " | 13 | Treasure in a man's field. |
| The labourers | ... " | 20... | The labourers grew sore. |
| Pearl of great price | ... " | 13... | The pearl of great price is money. |
| The sower | ... " | 13... | The sower and seed. |
| The ten virgins | ... " | 25... | } The talents and virgins unite. |
| The talents | ... " | 25... | |
| The two sons | ... " | 21... | Two sons. |
| The unclean spirit | ... " | 12 .. | Unclean spirits on view. |
| The Good Shepherd | ... <i>John</i> | 10... | Good Shepherd and fold. |

Narratives and Incidents in the Life of Christ.

The Biblical narratives relating to the Life of our Lord are all taken from the Gospel by *St. Luke*, which is the fullest and most descriptive record of the incidents of our Lord's career. Should any other Evangelist's version be required, it can immediately be found by the aid of a Reference Bible.

| NARRATIVE. | BOOK. CHAP. | ASSOCIATION. |
|------------------------------------|----------------------|--------------------------------------|
| The preaching of John the Baptist | ... <i>Luke</i> 3 .. | They hear John preach. |
| The temptation of Christ | ... " 4 ... | The temptation is over. |
| Sickness of Simon's wife's mother | ... " 4 ... | The fever left her. |
| Sick of the palsy healed | ... " 5 ... | They let him down through the tiles. |
| The choosing of the Apostles | ... " 6 .. | Twelve men they pick. |
| The man with the withered hand | ... " 6 ... | The withered hand healed next. |
| The Centurion's faith | ... " 7 ... | The Centurion his servant loved. |
| The widow of Nain | ... " 7 ... | The widow of Nain blessed. |
| The ointment shed in Simon's house | ... " 7 ... | The ointment shed on Simon's guest. |
| Christ asleep in the storm | ... " 8 | Christ asleep yet. |
| The legion of devils | ... " 8 .. | The devils driven out. |
| The raising of Jairus' daughter | ... " 8 ... | Jairus' daughter raised. |
| The five thousand fed | ... " 9 ... | Five thousand dine. |

| | | |
|--|-------|--|
| The Transfiguration | 9... | Transfigured they shine. |
| The seventy sent out | 10... | Seventy preachers' names <u>unknown.</u> |
| Christ's denunciation of the Pharisees | 10... | The Pharisees <u>undone.</u> |
| The crooked woman healed | 13... | The crooked one <u>healed.</u> |
| Discourse upon covetousness and worldly carefulness | 12... | The covetous <u>confused.</u> |
| Christ's discourse upon humility | 14 | Seek not <u>honour.</u> |
| Discourse upon serving two masters | 16... | Two masters <u>frantic.</u> |
| The ten lepers | 17... | Not one <u>honest.</u> |
| Pharisee and publican | 18 | The public man <u>prays.</u> |
| The story of Zacchæus | 19... | Zacchæus <u>running</u> |
| Christ weeps over Jerusalem | 19 | Christ weeps at what is <u>coming.</u> |
| Christ questioned upon paying tribute | 20 | Christ's wisdom soon <u>shown.</u> |
| The widow's mites | 21 | Two <u>gone.</u> |
| Peter's denial of Christ | 22 | The cock soon <u>crew.</u> |
| The Crucifixion | 23... | A dark day for <u>Jewry.</u> |
| Disciples journey to Emmaus | 24... | They meet a <u>mysterious tutor.</u> |

Biblical Narratives (continued) — New Testament.

| NARRATIVE. | BOOK. CHAP. | ASSOCIATION. |
|---------------------------------|-------------|---|
| Ananias and Sapphira |Acts | 5....Ananias and Sapphira die. |
| Stoning of Stephen | ... " | 7...Stephen the first martyr is. |
| The eunuch and Philip | ... " | 8...Philip with the eunuch <u>prays.</u> |
| Conversion of Saul | ... " | 9...Saul is blind. |
| Cornelius and Peter | .. " | 10...Peter the <u>Gospel unfolds.</u> |
| Peter's deliverance from prison | .. " | 12 ..Peter, the angels <u>undo.</u> |
| Conversion of Lydia | .. " | 16 ..Lydia transfixed. <u></u> |
| Paul and Silas in prison | .. " | 16...The jailer is <u>frantic.</u> |
| Paul preaches on Mars-hill | .. " | 17...Paul on Mars-hill <u>undressed.</u> |
| Eutychus restored to life | .. " | 20 ..Eutychus <u>grew cold.</u> |
| Paul at Ephesus | .. " | 19...Paul, Diana <u>condemns.</u> |
| Paul and Felix | .. " | 24...Felix <u>trembled at the future.</u> |
| Paul before Agrippa | .. " | 26 ..Agrippa thought Paul's <u>voice music.</u> |
| Paul's shipwreck | ... " | 27...Paul is <u>roofless.</u> |

Distance from London of the principal Cities of the World.

(From Huddleston's Chart.)

| CITY. | COUNTRY. | DISTANCE IN MILES. | ASSOCIATION. |
|-------------------|--------------------------|--------------------|--|
| Cape Town | ... Africa | 6,580... | Cape Town fixed by Cape Hope. |
| Constantinople... | Turkey | 3,100... | To Constantinople we can no road. |
| Canton | ... China | 13,650... | Canton a canny pigsty holds. |
| Quebec | ... Canada | 3,020... | To Quebec queer folks do go. |
| Sydney | ... Australia | 13,040... | Sydney money, folks borrow. |
| Dublin | ... Ireland | 293... | Dublin suits many. |
| Paris | ... France | 225... | Paris a pair of Zulus hides. |
| Edinburgh | ... Scotland | 391... | Edinboro' brought to repentance. |
| Jerusalem | ... Palestine | 3,433... | Jerusalem contains much deformity. |
| Suez | ... Egypt | 3,437... | The Suez Canal made Frenchmen delirious. |
| Khartoum | ... Soudan | 4,633... | Khartoum where Gordon was in perplexity. |
| New York | ... United States | 3,375... | To New York is a serious ride. |
| Vienna | ... Austria | 897... | Viennese to viands are very attentive. |
| Malta | ... Mediterranean Sea... | 2,427... | At Malta malt is superfluous. |
| Madrid | ... Spain | 707... | Mad people are frivolous. |
| St. Petersburg... | Russia | 1,381... | St. Petersburg where Peter made complications. |
| Calcutta | ... India | 12,160... | Calcutta cut by untrue anecdotes. |
| St. Michael's | ... Atlantic Ocean | 1,520... | St. Michael's, where pipless oranges unripe do grow. |
| Moscow | ... Russia | 1,800... | Moss covered bonnets hold snow. |
| Gibraltar | ... Spain | 1,381... | Contains altar, church, and congregation. |

Extent and Populations of European States.

(From Johnston's Geography.

(The underlined words give the area in thousands and the populations in millions.)

| COUNTRY. | SQUARE MILES. | POPULATION. | ASSOCIATION. |
|--------------------|------------------|---------------|--|
| British Isles | ... 122,000... | 33,000,000... | Britons some Zulus, deceived. |
| France | ... 203,000... | 36,000,000... | France new glory, predicts. |
| Spain | ... 182,000... | 16,000,000... | Spaniards cannot use, hammocks. |
| Portugal | ... 36,000... | 4,000,000... | Portuguese peacocks, are. |
| Italy | ... 112,000... | 27,000,000... | Italy's handsome views, few miss. |
| Greece | ... 19,000... | 1,500,000... | Greece wanting, one-half. |
| Turkey | ... 229,000 .. | 15,000,000... | Turkey's sure ruin, comes nigh. |
| Austria | ... 227,000... | 37,000,000... | Austria is scrupulous, enough. |
| Germany | ... 243,000... | 43,000,000... | Germans gooseberries, bury. |
| Belgium | ... 11,000... | 5,000,000... | Belgium's humdrum, life. |
| Holland | ... 10,000... | 3,000,000... | Hollander's land most, cheese. |
| Denmark | ... 14,000... | 2,000,000... | a den marked number, two. |
| Norway & Sweden... | 291,000... | 6,000,000... | Swedes few men can, peck. |
| Switzerland | ... 15,000 .. | 3,000,000... | Switzerland's grand heights, please. |
| Russia | ... 2,043,000... | 71,000,000... | Russia through those fir trees, distant. |

(The words after the comma give the populations.)

Population of Greece, one-and-a-half millions.

Chemistry.—Table of the Non-metallic Elements, with their Atomic Weights and Specific Gravities.

| Non-metallic Elements. | Atomic Weights. | Specific Gravities. | Homophonic Analogy or suggestive words. | Atomic Weight. | ASSOCIATION. Specific Gravities. |
|------------------------|-----------------|---------------------|---|----------------|-------------------------------------|
| Hydrogen | 1 | 1 | Hide her | John | John. |
| Oxygen | 16 | 16 | An ox is | humpbacked | humpbacked. |
| Nitrogen | 14 | 14 | At night we | slumber | slumber. |
| Chlorine | 35.5 | 35.5 | Cloe | decides, right | decides, right. |
| Bromine | 80 | 3.18 | Brown | Cato | sees, Hamlet. |
| Iodine | 127 | 4.95 | I dine means | conclusive | work, inside. |
| Fluorine | 19 | ... | Flower time | coming | we, ride. |
| Carbon | 12 | 3.5 | Cars and | canoes | blue, jacket. |
| Boron | 11 | 2.68 | Bore on | handsome | two, virgins. |
| Silicon | 28.5 | 2.49 | Silly | curate, hides | some, ditty. |
| Phosphorous | 31 | 1.83 | Foster | begun | few, notice. |
| Sulphur | 32 | 2.07 | Soldiers and | recruits | for, three. |
| Selenium | 79 | 4.3 | Sells | coffins | |

Where a decimal occurs, a comma is used, the whole number preceding the comma, the decimal coming after it,—thus: decides, right, 35.5.

The number words in the above examples are not underlined, as the whole of the words in the two last columns indicate figures.

Percentage of Nutriment contained in the various Articles of Food.

| There is contained in 100 pounds of | | | ASSOCIATION. |
|-------------------------------------|-----------------|-----|-------------------------------------|
| Bread | 63 of Nutriment | ... | Bread is sticky. |
| Butcher's Meat | 38 | ... | Meat in a <u>teapot</u> . |
| Potatoes | 25 | ... | Potatoes and rook pie. |
| Turnips | 9 | ... | Turnips make wind. |
| Carrots | 17 | ... | Carrots we banish. |
| Peas | 84 | ... | Peas make fatter. |
| Beans | 82 | ... | Beans in a spittoon. |
| Barley | 84 | ... | Barley makes bitters. |
| Lentils | 85 | ... | } Lentils and wheat fed Lot's wife. |
| Wheat | 85 | ... | |
| Sago | 82 | .. | Where Sago grows they tattoo. |
| Rice | 92 | ... | Rice we include. |
| Oatmeal | 91 | ... | Oatmeal used in <u>Lincoln</u> . |

English Sovereigns.—Preliminary Instructions.

IT is strictly necessary and expected that every Student, before he attempts to learn the following Dates, shall have thoroughly mastered the Rules or Principles of sound explained in the course of Lessons, so as to be able instantly to recognise the Figures embodied in the concluding words of each association.

The learning and associating of the following list of Sovereigns, is one of the greatest difficulties that will be experienced in connection with the System. The reason is, that instead of being a succession of Historical events, which are always very easy to learn with these Principles, it is nothing but a succession of mere names in most cases without any meaning, and it will be seen that we have often had to invent a meaning, and to bring forth ideas out of many words, which might be generally regarded as having no meaning at all.

To avoid confusion where many names alike follow each other, as the eight Henrys and the six Edwards, and to prevent the Student repeating the association connected with an Edward along with a Henry instead, is of great importance. With the Williams and Georges there is not much danger, as these are not so numerous or so intermixed, but with the Henrys and Edwards there is. To prevent this we have simply distinguished the two by a difference of association. The method adopted is, to make the first important syllable of each association connected with an Edward, to give the principal sound in Edward's name—(*Ed*); this will prevent the Student from confounding Henrys with Edwards. With Edward the First and Fifth, the above distinction is not used, the associations in themselves being sufficiently significant, as Longshanks would instantly suggest the former, and the Tower connection would suggest the latter, to any one acquainted with English History at all.

Each association connected with the first Sovereign of every new Line or Dynasty, contains, when necessary, some striking word to suggest the name of the Line to which they

belong; as Tutor will suggest Tudor, and Pork will suggest York. Each of these words are underlined, as also are the words expressing the dates of their accessions, and also the words suggesting the name or number of each.

The Student will perceive that through all these things having to be observed and embodied in each association, he will have to give more attention to the verbal order of the sentence than is needed to remember simple Historical events. This will be at once perceived by consulting the illustrations in the Summary, and the reason is that in order to remember a Historical event, we have only to embody words giving the date with the event; but with the accessions of Sovereigns we have likewise to embody the Line and name, and the number and order of each.

In fixing in mind the following dates, the Student should not attempt to learn the associations in the ordinary way, by simply repeating them over and over again, though a little repetition is necessary, more so than with ordinary events, as we have before shown. What is chiefly required is thought, invention, and imagination. The seeing as well as the thinking powers of the mind must be brought into operation. It will be observed, especially by the Student of History, that every association puts before the mind either a humorous picture or a striking idea, or else it embodies some Historical significance relating to the person, event, or time referred to. What is needed is that the Student should clearly understand and grasp the idea, and bring the mental pictures vividly and clearly before his mind's eye, at the same time bringing to his aid everything he knows respecting the peculiarities of dress, armour, manners, and scenery of the place or time to which each association refers. If this is attended to, it will take but little repetition to fasten the dates firmly and permanently in his mind, providing, of course, that he has before mastered and made himself thoroughly familiar with the Principles or Rules of the System relating to Figures.

For the benefit of those Students who may wish to learn the Names, etc., of the Sovereigns in their consecutive order, the Author has prepared all the following 56 associations in rhyme; each association being expressed in a couplet of two lines, and embodying a connection with the first 56 keywords in their consecutive order. The rhyme arrangement is inserted in the second part of this work relating to ideas, and will be found at the end of chapter 3 on How to remember Words.

Accession of Sovereigns.—From “*Collier’s History of England.*”

EARLY SAXON KINGS.

| NAME. | DATE. | MENTAL AND VERBAL ASSOCIATION. |
|---------------------------|-----------|---|
| Egbert | ...827... | Egbert boiled an egg, and ate it too fast. |
| Ethelwulf | ...836... | Ethelwulf saw a <u>wolf</u> playing at shuttlecock. |
| Ethelbald | ...857... | Ethelbald was so <u>bald</u> he might have lived since great Cyrus. |
| Ethelbert | ...860... | Ethelbert was so <u>hurt</u> , his screams made a great echo. |
| Ethelred | ...866... | Ethelred’s crown is made red by a Dane’s Pickaxe. |
| Alfred | ...871... | Alfred the Great was a King of great wisdom. |
| Edward the Elder | ...901... | Edward, Alfred’s eldest son, sits on the throne with but nine toes on. |
| Athelstan | ...925... | Athelstan stands <u>alone</u> , having few likes. |
| Edmund I. | ...941... | Edmund mounts the throne, the object of Danish incursions. |
| Edred | ...946... | Edred dreaded to drink burdock. |
| Edwy the Fair | ...955... | Edwy the Fair, saw a <u>fairy</u> in the dim twilight. |
| Edgar | ...959... | Edgar guards his crown when riding. |
| Edward II., the Martyr | ...975... | Edward, reckoned a Martyr, was murdered in his prime. |
| Ethelred II., the Unready | ...978... | Ethelred, reckoned unready because of his <u>shocking mistakes</u> . |
| Edmund II., or Ironsides | ...17... | Edmund’s <u>ironsides</u> did not last as long as his wife’s handmauff. |

A thousand years must always be added from Ironsides, inclusive.

DANISH KINGS.

- Canute ... 17... Canute, the Danish brute, tried all the Saxons to handcuff.
 Harold ... 36... Harold quarrelled about a Peacock.
 Hardicanute ... 39... Hardicanute had hardly any feeling.

SAXON LINE RESTORED.

- Edward III., the Confessor... 41... The Saxons regain and place on the throne the head Confessor's Organ.
 Harold II. ... 66... Harold is beckoned home for the crown he expects.

NORMAN LINE.

- William the Conqueror ... 66... William conquered with a Pickaxe.
 William Rufus ... 87... Rufus rudely crowned on a Mattress.
 Henry I. ... 100... Henry the First durst sit on his brother's grand old throne.
 Stephen ... 135... Stephen was no Antichrist.

PLANTAGENET LINE.

- Henry II. ... 154... Henry the Second a Lamplighter beckoned, and then lung him with a Plantagenet Line.
 Richard I. ... 189... Richard the First was often cursed, for he was always want making.
 John ... 199... John's crown gave him little contentment.
 Henry III. ... 216... Henry the Third broke his word, and proved a true humbug.
 Edward I., or Longshanks... 272... Edward the First, whose longshanks burst his new costume.
 Edward II. ... 307... Edward the Second, with head and face blackened, looks very ferocious.
 Edward III. ... 327... Edward the Third has bled his bird, and soiled his Queen's blue dress.
 Richard II. ... 377... Richard the Second of his crown was sickened, when he found all seditious.

LANCASTER LINE.

MENTAL AND VERBAL ASSOCIATION.

DATE.

NAME.

Henry IV. 399... Henry the Fourth to Lancaster goeth, and turns out a delinquent.
 Henry V. 413... Henry the Fifth nearly liveth on Burgundy.
 Henry VI. 422... Henry the Sixth is a Baby King fixed, no bigger than his father's two shoes.

HOUSE OF YORK.

Edward IV. 461... Edward the Fourth to bed he goeth, having eat pork, and spurned all correction.
 Edward V. 483... Edward the Fifth in the Tower they lift, and none dare pity.
 Richard III. 483... Richard the Third his nephew did murder, and he lies on the Carpet see.

TUDOR LINE.

Henry VII. 485... Henry the Seventh has seven Tutors, and they all eat Parrot Pie.
 Henry VIII. 509... Henry the Eighth, crowned on a gate, where he often played his Violin.
 Edward VI. 547... Edward the Sixth at the head is fixed, when times are too boisterous.
 Mary 553... Mary the fires lighted.
 Elizabeth 558... Elizabeth steered like a wise Pilot.

STUART LINE.

James I. 603... James Stuart's first Gun exploded.
 Charles I. 625... Charles, his throne did not long occupy.
 Commonwealth 649... The Commonwealth sat behind a black curtain.

Commonwealth

STUART LINE—continued.

- Charles II. ...660 ...Charles the Second was not what they reckoned, for he soon his former acts ignored.
- James II. ...685 ...James the Second, slackened his robes with his Pocketknife.
- William III. and Mary ...689 ...William the Third, his Mary girds in Black Satin.
- Anne ...702 ...Anne was not always resolute.

BRUNSWICK LINE.

- George I. ...714 ...George from Brunswick brought no dishonour.
- George II. ...727 ...George the Second by his Father is reckoned to be very disputive.
- George III. ...760 ...George the third to scream is heard with pain in his big toe.
- George IV. ...820 ...George the Fourth knoweth his wife at his footstool groans.
- William IV. ...830 ...William the Fourth soon goeth safely home.
- Victoria ...837 ...Victoria, crowned, of all Queens the prettiest.

PART II.—IDEAS.

— :: —

CHAPTER I.

The Relation of Words to Ideas.

MODERN civilized nations express their ideas in words, while some of the ancients, the Egyptians for instance, expressed theirs by symbols. The transmission of ideas by this course was tedious, and only the primary features of events were recorded, the memory being trusted to fill up the rest. This accounts, in the opinion of some, for the marvellous memory power which the ancients possessed. In the absence of a written language their memory powers were constantly exercised and drawn upon for those facts which men now record in books. Again it is said that symbols are much more easily remembered than words, but we must remember that words are symbols. Words are used by us to represent what the ancients did by pictures. We use the word instead of the picture, but the general mistake with us is, that we fail to see the picture which the word is intended to convey to our minds. Words are pictures in themselves. This is especially true of the Saxon part of our language, and if words are now too generally regarded as mere abstract signs of ideas, it is due more to our false educational methods, and to the hurry, worry, and unphilosophical manner in which our language is taught, than to any inherent want of the picturesque in the language itself if taught in a right way, and on etymological principles. I hardly need to say that this has much to do with Memory. If we would remember ideas we must see them, though an idea may be what we call an abstract idea and have nothing in it by which the imagination could work or the visual powers of the mind be exercised. But if there be nothing in the idea for the mind to see there will nearly always be found something in the words used to express it. Our Saxon words especially are replete with memory-aiding qualities, and though our ideas may be termed abstract, our language never can, and if the pupil will take the trouble to carefully examine and look beneath the surface of the class of words referred to in the following chapter he will find that an etymological knowledge of words has more to do with the remembering of them than is generally supposed.

CHAPTER II.

How to Remember Ideas.

NO two persons would express an idea exactly alike, though both might express it fully and correctly. The endless diversity of mind makes the same diversity of style, and there would probably not only be a great difference in the arrangement and selection of words, but also in the number of words employed, for while some persons have to make use of many words to express their ideas, others can fully express their meaning by the aid of very few. But this is the fact which we wish the reader to observe, that whether an idea be expressed in few words or many, there is always one word which lies at the root of the idea which forms its base or foundation, which has more to do with the idea than any other word in the passage or sentence has. This may be termed the germ or root word, to which all the other words are but auxiliaries, employed to express the idea more clearly. When it is the reader's wish to better remember any order of ideas which he may be reading or learning by heart, whether prose or verse, he should carefully examine the ideas as they follow each other and select from each idea the most striking or important word, the word upon which the idea rests. This word should be underlined, and if convenient written in the margin exactly opposite where it occurs. Then read the idea carefully over, observing its connection with the germ word; notice in what part of the page the idea occurs, whether in the middle, the top, or the bottom. If learning it, notice also the beginning and concluding words of each sentence, and how they follow each other, and in what relation they stand to the germ word of the idea; notice also where the germ word occurs, and its position in the page and line. Observe these particulars until the matter is thus photographed upon the mind, until you are able to see mentally the matter before you when your eyes are taken off the book.

We here insert an extract from Shakespeare's *Merchant of Venice* to further simplify and illustrate the selection of words just referred to:—

MERCY.

 STRANGE BLESSED SCRIPTURES ABOVE, THERE.

STRAINED

The quality of mercy is not strained,

It droppeth as the gentle rain from heaven

BLESSED

Upon the earth beneath ; it is twice blessed,

It blesseth him that gives, and him that takes,

'Tis mightiest in the mightiest ; it becomes

The throned monarch better than his crown ;

SCEPTRE

His sceptre shows the force of temporal power

The attribute to awe and majesty,

Wherein doth sit the dread and fear of kings :

ABOVE

But mercy is above this sceptred sway,

It is enthroned in the hearts of kings ;

It is an attribute to God Himself ;

And earthly power doth then show likest God's

THEREFORE

When mercy seasons justice. Therefore. Jew,

Though justice be thy plea. Consider this :

That, in the course of justice, none of us

Should see salvation : we do pray for mercy ;

And that same prayer doth teach us all to render

The deeds of mercy.

Shakespeare.

The reader will see that the poet in the above piece brings out only four primary ideas respecting "Mercy," though we have here divided the third in order to more vividly impress the two opposite aspects forming the idea. The first idea expresses the copiousness of Mercy, and the germ word is "strained," an old Saxon word, though seldom used now in the sense in which it is employed here. The meaning conveyed here is that of filtration, the act of passing through a sieve or strainer whereby the rapid passage of the liquid is obstructed and it is made to drop slowly, to filter through. The poet here shows that this is not the quality of Mercy to descend to us in this manner, but it descends copiously as the gentle rain from heaven upon the earth beneath. Thus the reader will see that the word "strained" lies at the root of the poet's meaning, and it forms the connecting link between the negative and the positive aspects of the idea.

The second idea respecting Mercy is its dignified blessedness. The primary word of which is "blessed." This word like the other reaches to every part of the idea. The moment you think of "blessed," the secondary ideas or thoughts which cling around it or which are logically connected with it immediately come to mind. You ask yourself, How is it blessed? It is twice blessed. Why? Because it blesseth him that gives and him that takes. Hence its influence,—'tis mightiest in the mightiest, and its dignity—it becomes the throned monarch better than his crown.

The third idea shows the superior majesty of Mercy in contrast to all the grandeur of temporal power embodied in the sceptre. "Sceptre" is the primary word, connected with every part of the idea. The secondary ideas will be observed to run thus: (1) the sceptre shows something, (2) is an aid to something, (3) in this emblem doth sit the dread and fear of kings. Positive aspect: Mercy is above this sceptred sway. Why? (1) It is enthroned in the hearts of kings, (2) it is an attribute of God, (3) earthly power is most like God's when mercy and justice are combined.

The last idea is the reasonableness of Mercy, and is logically connected with the preceding idea, and may therefore be easily remembered without the aid of a suggestive word, but we have nevertheless underlined the word for the

purpose of illustration. The primary word of the idea is "Therefore,"—the word links the preceding thoughts with the following ones. Therefore, Jew, because of these considerations exercise mercy; reason calls for it, it is only reasonable to do it. Why? Though justice be thy plea. Consider this: (1) That in the course of justice none of us, &c.; (2) We do pray for mercy, that is each of us, every one of us; (3) This fact should teach us all to render the deeds of mercy. Thus we see that these three secondary ideas are all logically and inseparably connected with the primary word of the main idea. In reading or learning anything by heart it is of primary importance to notice the logical sequence of ideas, compare them and observe closely their relation to each other. If this is done they will naturally recall or suggest each other afterwards.

Only when there is a break in the logical connection of ideas is it really necessary to select and underline a germ word, and this should be done with every first idea of a connected series. It should be particularly attended to in merely reading a book and wishing to remember the substance of it afterwards; but in learning by heart the assistance of underlined words may be used more frequently, as in the piece just illustrated. Then if the student prefers he may link the suggestive words together (or words sufficiently like them to suggest them) into a sentence, as shewn in the illustration, if the piece or poem which is being learned is a short one; but if a long one the suggestive words may be connected with the keywords, as described in chapter 3.



CHAPTER III.

How to Remember Words.

(FIRST RULE.)

TO learn a series of disconnected words should never be attempted by mere repetition, but by Association, either artificial or natural. By natural Association we simply mean that natural relationship which the mind spontaneously establishes between different ideas by those points of contrast or analogy which are discovered in them. Thus the mind not only naturally associates things possessing points of analogy or natural affinity, as sun and moon, leaf and tree, boat and river, but it also quite as readily and naturally associates ideas having no points of analogy, but the most directly opposite in nature and meaning, as light and darkness, fire and water, black and white, hot and cold, &c. Students will know well how to utilize these two mental properties in learning ideas. But we find also that the mind or memory is remarkable for a third power in connection with memory, viz.: the power to recall words and ideas in connection with each other, though they may have no points of analogy, contrast, or natural affinity whatever, provided that they have been brought before the mind in connection with each other when the mind is first made acquainted with them. If two such ideas are repeatedly presented to the mind together, they become inseparably connected with each other, thus: "Pears' Soap," "Colman's Mustard," &c.; but if more than two words, say half-a-dozen, were repeatedly presented to the mind in the same way, the result would be altogether different, the memory would not act so readily and so easily. Thus we learn that the capacity of memory is exceedingly limited, and if it is only fixed upon two ideas or words at once, it will perform its work. Hence we ask the student to learn the following list of words by the following rule, which embraces this particular principle of Memory:—

Intemperance.

Oration.

Astronomy.

Africa.

Business.
 Conscience.
 Elephant.
 Civilization.
 Parliament.

Bring the words before the mind by two together, (1) compare them, (2) fix the whole attention of the mind upon them, (3) notice the points of analogy or contrast between them, (4) reflect and consider what impressions or mental associations the mind spontaneously establishes between them. When the first two words, Intemperance and Oration, have been thus compared, leave them entirely, do not allow the mind to revert to them. Then take Oration and Astronomy, compare them in the same manner. Then take Astronomy and Africa, and so with the others, thus:—

| | |
|---------------|---------------|
| Intemperance. | Oration. |
| Oration. | Astronomy. |
| Astronomy. | Africa. |
| Africa. | Business. |
| Business. | Conscience. |
| Conscience. | Elephant. |
| Elephant. | Civilization. |
| Civilization. | Parliament. |

The success of the above rule depends entirely upon only allowing two words to occupy the mind together. The attention should be concentrated entirely upon each couple of words as they are dealt with, never thinking of what words have preceded, until the last two have been compared, when the student can endeavour to repeat them, thus Intemperance will suggest Oration, Oration will suggest Astronomy, and so on; should one link in the chain be found weak, or one word not forthcoming, compare it again with its fellow. By this plan the memory would be no more burdened to remember fifty words than to remember ten, because the memory is never burdened with more than two words at a time.

How to Remember Words.

(SECOND RULE.)

THE preceding rule is based upon what we may term natural Association only, but the following rule which we are about to explain is based purely upon artificial Association. To enable the student to practice the rule effectually it is desirable first of all to learn the Mnemonical Key inserted at the end of this chapter, or at least a part of it, just what the student thinks he may need, but it will be always very advantageous to learn it all, as the memory-power it affords richly repays for the trouble of doing so. But it should be borne in mind that to use the key aright it should be thoroughly mastered, so engrafted in the mind as to become as it were a part of the memory itself, so that it can be repeated either backward or forward without any mental effort. When this can be done words and ideas can be learned and taken into the mind with great rapidity almost as fast as they can be dictated or expressed.

Before going further it is advisable that the student should learn the first ten key-words, and when able to repeat them easily either backward or forward, then proceed with the following exercise in remembering words. Take the same list of nine words as used to illustrate the former rule, and proceed as follows:—

Associate the word (Intemperance) with the first word in your key, which is Drum, by bringing them together so perfectly before your mind, that one word cannot be remembered without bringing to mind the other. For instance, picture to your mind a large Drum, with a drunken man lying across it, a true picture of Intemperance. Thus, when you think of Drum you will instantly think of the word Intemperance. The next word is Oration; you connect it with the next key-word (Shoe) in a similar manner. For instance, picture an Orator delivering an Oration about Shoes, and holding up a Shoe in his hand. Be careful that every mental picture is brought vividly and distinctly before the mind, and each association clearly seen and understood before you pass on to another.

The next word is Astronomy, you associate it with the next key-word (Tree) by picturing a person with a large

Telescope studying Astronomy under a Tree. The next word is Africa, you connect it as before with the next key-word (Fur). You may say to yourself they don't need Furs in Africa. The next word is Business, you connect it with the key-word (Knife). Imagine a Butcher showing you a Knife and telling you he needs a Knife for his Business. Next word is Conscience, connect it with the key-word (Fox). Think of some one telling you that a Fox has no Conscience. Next word is Elephant, connect it with the key-word (Sieve). Picture an Elephant pushing his trunk through a Sieve. Next word is Civilization, connect it with the key-word (Gate). You may say that a Gate is a sign of Civilization, as people never use them who are uncivilized. Next word is Parliament, you connect it with the key-word (Sign). Imagine a certain member of Parliament painting a Sign. And in this manner always bring as much in connection with the words as possible, in order to make the association more perfect and complete. Now, in order to remember these nine words, all that you have to do is to let your mind run over the key-words, beginning with the first, and the recollection of the key-words will bring the others to mind. The recollection of Drum will bring to mind Intemperance, the recollection of Shoe will suggest the word Oration. Tree will suggest Astronomy, and Fur will suggest Africa. And so you proceed with the others, and through their being associated in your mind with the key-words, the simple recollection of the key-words will bring them to mind; at least, if they fail to do so, it is because you have not connected them before your mind with sufficient vividness and distinctness. It will now be seen what a great advantage it is to learn the key, and the vast Memory-power you will always have at command when it is thoroughly learned; for, just as the key contains 100 picture words, so it will enable you to fix in mind as many disconnected words, and remember them with only once hearing, by simply connecting each word with a separate key-word. Be careful that you make your associations both striking and complete, and fix the mental pictures vividly before the mind. Proceed carefully at first, exercising yourself with only a few words at a time; practice the art of association constantly, and rapidity will soon be acquired.

The primary use of the Mnemonical Key is to enable the student to classify ideas or facts in any required order, and to retain any number of facts or events in their proper sequence, such as the Books of the Bible, the Kings and Queens of England, and likewise to enable him to readily reproduce them in any order or form in which they may be required. Suppose, for instance, that a student learns the English "Sovereigns" by the second list, having the Key arrangement in rhyme, inserted at the end of this chapter. He will be able to answer instantly any of the following questions which may be put to him by an examiner respecting any English Sovereign.

- 1.—Give the date of his or her accession.
- 2.—Name the Sovereign who preceded him.
- 3.—Name the Sovereign who succeeded him.
- 4.—How far was he in numerical order from the first of his line or dynasty.
- 5.—How far in numerical order from William the Conqueror.
- 6.—How far in numerical order from Egbert, the first Saxon king.

The Key arrangement of the English Sovereigns is much more difficult to learn than the other, but to those who desire to have a thorough and intimate knowledge of English History, it has great advantages, and should be preferred.

Accession of English Sovereigns, in Rhyme.

EARLY SAXON KINGS.

| NAME. | DATE. | KEY-WORD. | MENTAL AND VERBAL ASSOCIATION. |
|-----------|-----------|-----------|---|
| Egbert | ...827... | Drum | ...Egbert's drum of eggs Bertie passed, Turned back and took one and ate it too fast. $\frac{8}{8} \frac{2}{2} \frac{7}{7}$ |
| Ethelwulf | ...836.. | Shoe | ...Ethelwulf saw, arrayed in shoes and frock, A Wolf in the forest that played at shuttlecock. $\frac{8}{8} \frac{3}{3} \frac{6}{6}$ |
| Ethelbald | ...857... | Tree | ...Ethelbald is so bald that if we tried to guess, We should call him as old as the great cypress. $\frac{8}{8} \frac{5}{5} \frac{7}{7}$ |
| Ethelbert | ...860... | Fur | ...Ethelbert clad in fur; how he sank in the snow None could tell, but his cries made a great echo. $\frac{8}{8} \frac{6}{6} \frac{0}{0}$ |
| Ethelred | ...866... | Knife | ...Ethelred's face was made red as a brick, By a brawl with a knife at a late picnic. $\frac{8}{8} \frac{6}{6} \frac{6}{6}$ |
| Alfred | ...871... | Fox | ...Alfred the Great like a Fox is come To live in state, and shew great wisdom. $\frac{8}{8} \frac{7}{7} \frac{1}{1}$ |

| | | |
|---------------------------|-------------------|---|
| Edward the Elder | ...901... Sieve | ...Edward the Elder, great Alfred's son, Through a <u>sieve</u> put his feet with but nine toes on. $\frac{9}{9} \frac{0}{0} \frac{1}{1}$ |
| Athelstan | ...925... Gate | ...Athelstan by the gate stands nigh, Dreading to stay yet <u>fearing to fly</u> . $\frac{9}{9} \frac{2}{2} \frac{5}{5}$ |
| Edmund I. | ...941... Sign | ...Edmund, demanding a boating excursion, <u>Designs</u> for his friends a harmless immersion. $\frac{9}{9} \frac{4}{4} \frac{1}{1}$ |
| Edred | ...946... Banjo | .. Edred a banjo liked to knock, As much as <u>he dreaded</u> to drink burdock. $\frac{9}{9} \frac{4}{4} \frac{6}{6}$ |
| Edwy the Fair | ...955... Onion | ...Through eating onions Edwy saw a sight, Of <u>fairies dancing</u> in the dim twilight. $\frac{9}{9} \frac{5}{5} \frac{5}{5}$ |
| Edgar | ...959... Canoe | ...Edgar guards, during his employment, His <u>canoe</u> , which afterwards gives him enjoyment. $\frac{9}{9} \frac{5}{5} \frac{9}{9}$ |
| Edward II., the Martyr | ...975... Monkey | ..Edward the Second, by the Monks of his time, <u>Reckoned</u> a Martyr, and slain in his prime. $\frac{9}{9} \frac{7}{7} \frac{5}{5}$ |
| Ethelred II., the Unready | ...978... Hammer | .. Ethelred reckoned unready, he breaks With <u>hammer</u> all ties, and makes shocking mistakes. $\frac{9}{9} \frac{7}{7} \frac{8}{8}$ |
| Edmund II., or Ironsides | ... 17... Bonfire | ...Edmund's ironsides are reckoned to be tough, For he went through <u>fire</u> for his wife's handmuff. $\frac{1}{1} \frac{7}{7}$ |

A thousand years must always be added from Ironsides, inclusive.—See Summary.

DANISH KINGS.

| NAME. | DATE. | KEYWORD. | MENTAL AND VERBAL ASSOCIATION. |
|-------------|-----------|----------|---|
| Canute | ... 17... | Hammock | Canute from his hammock on the wharf, Can hoot the wild waves to stand off. <u>1</u> <u>7</u> |
| Harold | ... 36... | Handeuff | Harold stands handcuffed in the dock, Having quarrelled about a Peacock. <u>3</u> <u>6</u> |
| Hardicanute | ... 39... | Trumpet | Hardicanute by a trumpet's squealings, Hardly can hoot out kingly feelings. <u>3</u> <u>9</u> |

SAXON LINE RESTORED.

| | | | |
|----------------------------|-----------|---------|---|
| Edward III., the Confessor | ... 41... | Pumpkin | Edward the Confessor heard a guilty man Say, he'd hidden pumpkins in the Church Organ. <u>4</u> <u>1</u> |
| Harold II. | ... 66 .. | Crusoe | Harold reading Crusoe is beckoned home direct, By heralds who tell him the crown to expect. <u>6</u> <u>6</u> |

NORMAN LINE.

| | | | |
|-----------------------|-------------|---------|--|
| William the Conqueror | ... 66 .. | Stewpan | William the Conqueror everything did tax, From a kitchen stewpan to a lady's knicknacks. <u>6</u> <u>6</u> |
| William Rufus | ... 87.... | Jujube | Rufus rudely despising the cost, A cargo of jujubes sent out to Patmos. <u>8</u> <u>7</u> |
| Henry I. | ... 100.... | Tureen | Henry the First, when his brother's from home, Durst mash a tureen on the grand old throne. <u>1</u> <u>0</u> <u>0</u> |

Stephen

...135 . Ewer

...Stephen an ewer on the standard did hoist,
The sign which the hearts of the Normans rejoiced.

$\frac{1}{1} \frac{3}{3} \frac{5}{5}$

PLANTAGENET LINE.

Henry II.

...154 ...Schoolboy ...Henry the Second, of Plantagenets none brighter,
Beckoned a schoolboy to be his lamplighter.

$\frac{1}{1} \frac{5}{5} \frac{4}{4}$

Richard I.

...189 ...Shoeblack ...Richard the First gave his shoeblack a slaking,
Who durst say his ransom was a mighty sum taking.

$\frac{1}{1} \frac{8}{8} \frac{9}{9}$

John

...199 ...Tourist ...John, with a tourist's haste, out of resentment,
Signed the Charter which gave him little contentment.

$\frac{1}{1} \frac{9}{9} \frac{9}{9}$

Henry III.

...216 ...Cruet ...Henry the Third did some curious tricks,
With a cruetstand, birdcage, and two drumsticks.

$\frac{2}{2} \frac{1}{1} \frac{6}{6}$

Edward I.

...272 ..Student ...Edward the First, from a dead student's room,
Stole a purse for to buy him a new costume.

$\frac{2}{2} \frac{7}{7} \frac{2}{2}$

Edward II.

...307 ...Negro ...Edward the Second met a Negro atrocious.
Who's blackened head made him look very ferocious.

$\frac{3}{3} \frac{0}{0} \frac{7}{7}$

Edward III.

...327 ..Besom ...Edward the Third soon Franceward he cruises,
And besonlike sweeps o'er the land he reduces.

$\frac{3}{3} \frac{2}{2} \frac{7}{7}$

Richard II.

...377 ...Beetroot ...Richard the Second grew sick and suspicious
Of beetroot, which once he thought very delicious.

$\frac{3}{3} \frac{7}{7} \frac{7}{7}$

LANCASTER LINE.

| NAME | DATE. | KEYWORD. | MENTAL AND VERBAL ASSOCIATION. |
|-----------|------------|----------|---|
| Henry IV. | ...399.... | Aerie | ...Henry the Fourth is his lanky legs <u>rending</u> , From an <u>Aerie</u> with <u>four</u> young eaglets descending. $\begin{array}{r} 3 \\ 9 \\ 9 \end{array}$ |
| Henry V. | ..413... | Cigar | ...Henry the Fifth what a <u>spendthrift</u> was he, Over <u>Brandy</u> , <u>Cigars</u> , and red <u>Burgundy</u> . $\begin{array}{r} 4 \\ 1 \\ 3 \end{array}$ |
| Henry VI. | ...422.... | Beehive | ...Henry the Sixth kicks a <u>hive</u> while they choose Him for <u>King</u> , and <u>steps</u> into his father's two shoes. $\begin{array}{r} 4 \\ 2 \\ 2 \end{array}$ |

HOUSE OF YORK.

| | | | |
|--------------|------------|---------|--|
| Edward IV. | ...461.... | Peacock | ...Edward the Fourth groweth vain of complexion, And aspires at <u>York</u> to a <u>Peacock's</u> perfection. $\begin{array}{r} 4 \\ 6 \\ 1 \end{array}$ |
| Edward V. | ...483.... | Giraffe | ...Edward the Fifth rode right through the <u>City</u> , A <u>Giraffe</u> to the <u>Tower</u> , at least so says our ditty. $\begin{array}{r} 4 \\ 8 \\ 3 \end{array}$ |
| Richard III. | ...483.... | Teapot | ...Richard the Third killed his nephews so pretty, With a <u>teapot-sheer</u> , though they cried out for pity. $\begin{array}{r} 4 \\ 8 \\ 3 \end{array}$ |

TUDOR LINE.

| | | | |
|------------|------------|----------|--|
| Henry VII. | ...485.... | Sealskin | ...Henry the Seventh in a sealskin sits by, Watching his seven <u>Tutors</u> devour <u>Parrot-pie</u> . $\begin{array}{r} 4 \\ 8 \\ 5 \end{array}$ |
|------------|------------|----------|--|

| | | |
|---------------------|---------------------|--|
| Henry VIII. |509....Barrow | ...Henry the Eighth, <u>mate for Nero in sin,</u> To his wives in a <u>barrow</u> played his violin. <u>50 9</u> |
| Edward VI. |547....Organ | ...Edward the Sixth <u>fixed in a cloister</u> was, For <u>spoil</u> ing an <u>organ</u> by playing too boisterous. <u>5 4 7</u> |
| Mary | .. 553....Harpoon | ...Mary, whose hopes of offspring were blighted, With a whaler's <u>harpoon</u> the martyr firelighted. <u>5 5 3</u> |
| Elizabeth |558....Turkey | ...Elizabeth, Queen who a husband ne'er got, Like Diana, <u>turkeys</u> on moonlight nights shot. <u>5 5 8</u> |
| STUART LINE. | | |
| James I. |603....Mirror | ...James the First with stewed heart loaded His gun, which, as <u>frail</u> as a <u>mirror</u> , exploded. <u>6 0 3</u> |
| Charles I. |625....Tortoise | ...Charles the First with a Tortoise does buy The throne, he does not undisturbed occupy. <u>6 2 5</u> |
| Commonwealth |649.. Burdock | ...Of Commonwealth rulers we know nothing certain, But that <u>burdock</u> they drank behind a black curtain. <u>6 4 9</u> |
| Charles II. |660....Carcass | ...Charles the Second, who hid in the oak, <u>Blackened his carcass</u> in a picnic joke. <u>6 6 0</u> |
| James II. |685....Carpet | ...James the Second, who fled for his life, Taking nought but a <u>carpet</u> and one pocketknife <u>6 8 5</u> |

STUART LINE—continued.

| NAME. | DATE. | KEY-WORD. | MENTAL AND VERBAL ASSOCIATION. |
|------------------------|-----------|-----------|--|
| William III. and Mary | ...689... | Curtain | ... William the Third absurdly choose matting And curtains to clothe <u>Mary</u> , made of black satin. <u>6</u> <u>8</u> <u>9</u> |
| Anne | ...702... | Limestone | ... Queen Anne, like many of her sex, seldom mute, Was like a <u>limestone</u> . hard and resolute. <u>7</u> <u>0</u> <u>2</u> |
| BRUNSWICK LINE. | | | |
| George I. | ...714... | Lion | ... George the First, well versed in foreign manners, <u>Lionlike</u> , claimed the first <u>British</u> honours. <u>7</u> <u>1</u> <u>4</u> |
| George II. | ...727... | Toybook | ... George the Second, whose father abusive, <u>Blackened</u> his <u>toybook</u> and made him disputive. <u>7</u> <u>2</u> <u>7</u> |
| George III. | ...760... | Ivy | ... George the Third, who was heard to shout oh ! When the <u>ivy</u> entangled and <u>hurt</u> his big toe. <u>7</u> <u>6</u> <u>0</u> |
| George IV. | ...820... | Tiger | ... George the Fourth like a <u>Tiger</u> foams With <u>wrath</u> when his dog from his footstool roams. <u>8</u> <u>2</u> <u>0</u> |
| William IV. | ...830... | Lifebuoy | ... William the Fourth as a sailor is known, Who stoweth a <u>buoy</u> 'neath his stately throne. <u>8</u> <u>3</u> <u>0</u> |
| Victoria | ...837... | Knifebox | ... A crown in a <u>knifebox</u> ready to be prest On Victoria's brow, of Queens the prettiest. <u>8</u> <u>3</u> <u>7</u> |

MNEMONICAL KEY. SAMBROOK'S PHONOGRAPHIC SYSTEM.

| | | | | | | | | | | | | | | | | | | | |
|----|-------|----|----------|----|-----------|----|----------|----|-----------|----|-----------|----|---------|----|----------|----|----------|----|----------|
| 1 | Drum | 11 | Onion | 21 | Stewpan | 31 | Besom | 41 | Organ | 51 | Lion | 61 | Packman | 71 | Pheasant | 81 | Hatstand | 91 | Lemon |
| 2 | Shoe | 12 | Canoe | 22 | Jujube | 32 | Beetroot | 42 | Harpoon | 52 | Toybook | 62 | Cuckoo | 72 | Costume | 82 | Pothook | 92 | Hymnbook |
| 3 | Tree | 13 | Monkey | 23 | Tureen | 33 | Aerie | 43 | Turkey | 53 | Ivy | 63 | Jockey | 73 | Coffee | 83 | Settee | 93 | Penny |
| 4 | Fur | 14 | Hammer | 24 | Ewer | 34 | Cigar | 44 | Mirror | 54 | Tiger | 64 | Cracker | 74 | Quiver | 84 | Grater | 94 | Fender |
| 5 | Knife | 15 | Bonfire | 25 | Schoolboy | 35 | Beehive | 45 | Tortoise | 55 | Lifebuoy | 65 | Necktie | 75 | Sapphire | 85 | Potboy | 95 | Penknife |
| 6 | Fox | 16 | Hammock | 26 | Shoeblack | 36 | Peacock | 46 | Burdock | 56 | Knifebox | 66 | Pickaxe | 76 | Hassock | 86 | Hatbox | 96 | Minie |
| 7 | Sieve | 17 | Handcuff | 27 | Tourist | 37 | Giraffe | 47 | Carcass | 57 | Whitewash | 67 | Bacchus | 77 | Mastiff | 87 | Mattress | 97 | Windlass |
| 8 | Gate | 18 | Trumpet | 28 | Cruet | 38 | Teapot | 48 | Carpet | 58 | Pilot | 68 | Bucket | 78 | Musket | 88 | Hatchet | 98 | Gimlet |
| 9 | Sign | 19 | Pumpkin | 29 | Student | 39 | Sealskin | 49 | Curtain | 59 | Trident | 69 | Chicken | 79 | Muffin | 89 | Patten | 99 | Engine |
| 10 | Banjo | 20 | Crusoe | 30 | Negro | 40 | Barrow | 50 | Limestone | 60 | Echo | 70 | Lasso | 80 | Motto | 90 | Window | | |

CHAPTER IV.

How to Remember Sermons.

(FIRST RULE.)

THE principle embodied in this chapter is that of condensing ideas and representing them by Germ words as explained fully in Chapter II., on "How to remember Ideas."

Just upon the principle that the mention of the word (Cross) is sufficient to call up before the mind all the various circumstances connected with the Crucifixion; or as the word (Ark) instantly brings to mind the Deluge; or as the word (Cromwell) brings before our mind the various events of the Civil war; so is it possible to condense any idea into one representative or suggestive word, and that word remembered will be sufficient to bring the idea to mind. This is the Principle brought into operation in order to remember Sermons or Speeches. As the Speaker proceeds, each idea, argument, opinion, or anecdote, must be made to hang upon some strikingly suggestive word, and these suggestive words associated with the key-words in the manner before described. Of course it will require some practice in order to accomplish this Mental reporting of Discourses, and a great deal likewise depends upon the judgment in the proper choice of words. In order to illustrate this point, if possible, suppose you are trying to remember a Sermon, and the first idea the Preacher gives expression to is something like the following:—

"Wherever we turn our thoughts, whether it be to the
 "unfathomable depths of the earth beneath us, or to the
 "innumerable wonders of the starry sky above us, or to the
 "varied manifestations of Nature around us, we everywhere
 "see evidences of the existence of a God." Now, the most proper word to take, in order to remember the above idea, is the word (Evidences), because the whole idea hinges upon it, and the sense could not be complete without it. Now you connect the word (Evidences) with the first word in your key in the manner before described; and if you associate perfectly, the moment you remember (Drum) you will think of Evidences, and then the natural enquiry will be: What about evidences? Evidences where? Evidences of what? And thus the word will naturally bring to mind the idea. What we have shewn to be done with the first

idea, do also with the second, connecting it with the second key-word, and so on with the others until the Discourse is ended.

Your first attempts may be failures; but practise well the principles, even when you are not trying to remember a Discourse; but whenever listening to one, develop and exercise your judgment by analysing the speaker's ideas, and endeavouring to discover which are the most dependent and suggestive words, and most likely to bring the different ideas to mind. Thus you will be gradually and imperceptibly preparing yourself to remember Speeches when required; besides exercising, developing, and improving the mind in many ways.

(SECOND RULE,)

THIS rule differs from the first in this particular—instead of connecting every idea with the Key, you only connect the leading ideas, the first idea of a series naturally related and logically connected with each other. The Key should be used in columns, and each column devoted to a separate portion of the Discourse. The first column of Key-words should be used for the introduction; the second for the first part or division of the Discourse; and so on—one column for each division of the subject. Seldom will all the Key-words of a column be required; but if they are not required, pass on to the next column immediately the preacher finishes a division of his subject. The object of this rule is not to remember every distinct idea, as is the case with the first rule, but to enable the Student to remember a general outline of it for his own general and personal use. Hence the first idea of each line of thought must be associated with a Key-word, but the intermediate ideas must be allowed to suggest each other. As the speaker proceeds from one idea to another, their connection and relation to each other must be closely observed, until you perceive the natural connection cease, as will be the case when the speaker proceeds to another point or feature of his subject, then again employ the Key to secure the first or opening idea, and in like manner secure the opening idea of each succeeding point in the discourse, and the opening idea will bring the others naturally connected with it to mind.

CHAPTER V.

How to Speak without Notes.

(FIRST RULE.)

Adapted to Extemporaneous Speaking.

CONDENSE the various topics upon which you desire to speak into strikingly suggestive words which will bring them to your mind, and then connect these with your key-words in the order in which you require to call them to mind. The first idea with the first key-word, the second idea with the second key-word, and so on with the rest; and in this manner can the various ideas, opinions, arguments and anecdotes. be brought to mind, by simply reflecting upon the key-words to which you have connected them.

A Minister when preaching may apply the principle in a different way. Instead of connecting his leading ideas with the key-words, he may use a chapter in the Bible for the same purpose, and connect his ideas with the first picture word which occurs in each verse of the chapter; and by having the chapter open before him when preaching, and casting his eye upon each verse in succession, the ideas connected with them will be instantly brought to mind as they are required. By this Method the Key is not required, and the objections of those who think the Key to be unsuitable for sacred association is obviated.

SECOND RULE.

This Rule is only suitable for those who write their Discourses, or in other respects make elaborate preparation.

THE Rule simply depends upon having an exact knowledge of the words with which you intend to conclude your remarks upon each point of your Discourse, and selecting from the concluding sentence the best picture word it contains, and then associating this with a suggestive word which will bring the next point or idea to mind. Take the following brief outline as an illustration:—

DISCOURSE UPON WORK.

TEXT—"Go work in my vineyard."

After the necessary introduction, suppose these four points are the leading ideas in a written Discourse.

- 1.—The obligation to work is universal.
- 2.—Work is ennobling to our Nature.
- 3.—Work is conducive to happiness.
- 4.—Work brings a sure reward.

Presuming that the Discourse is committed to Memory, the Design of this Rule is simply to connect the last sentence of one part of the Discourse with the leading idea of the next.

First we detail the outline of the supposed First point, —That the obligation to work is universal.

The Creator has laid all his subjects under service of some kind. Everything He has made has a purpose, has a mission of its own. The obligation to work is not only laid upon every member of our own race, but also upon every creature that exists. The Fish in the sea, the Bird upon the wing, the Beast roaming in the forest, even the tiny Insect buzzing through the air, all are active, all are employed; Nature's command to these is—work. The silent invisible forces of Nature around us likewise shew forth evidences of continual activity. Yea, wherever we turn our thoughts, wherever we look we see revolving worlds above us, busy activity everywhere around us, reminding us of the obligation under which the great command has laid us. But this obligation not only extends to every creature below us, but likewise to every creature above us. God has not only laid the least, but also the greatest of His creatures under service. He has shewn us that there is no Intelligence too great, and no being too high, to serve. The command "to work" which He has given to us, He has also given to Beings far greater and nobler than ourselves. Not only are we employed, but Angels are likewise employed—servants as we are. For "are they not all ministering (Spirits) sent forth to minister unto them who shall be heirs of Salvation."

The supposed next point is that Work is ennobling to our Nature.

Suggestive word—(Ennobling).

Selected word from the concluding passage of preceding remarks is (Spirits).

Connective words—(Spirits and ennobling).

Connecting Mental Picture. Two Spirits ennobling a poor beggar and placing a coronet on his head.

Suggestive word—(Ennobling).

Honest work is ennobling and elevating to the nature and character.

Our works not only influence others, but they influence ourselves. It has been truly said that "every one is the son of his own works." It is the work that makes the man, that gradually brings forth and develops the vices or the virtues that form his character. As truly as Luther established the Reformation the Reformation tended to establish him. It was the work, the trials and the difficulties of the Reformation which revealed his courage, developed his capabilities, and caused his name to shine forth as the great reformer of Christendom. The brightest lives that have adorned the pages of History, whether it be Columbus or Bacon, or Newton or Scott, owe their nobility and greatness to their unceasing toil ; it is this which has brought out their hidden gifts and virtues, and made them truly men. Honest work always did ennoble the character and elevate the patient toiler in the path of truth ; and Nature's Laws remain for ever faithful, they that sow shall surely reap. The lives of great men all remind us. We may make our lives sublime, and departing, leave behind us footprints on the (sands) of time.

The supposed next point is—Work is conducive to happiness.

Suggestive word—(Happiness).

Selected word from the concluding passage of preceding remarks is (Sands).

Connecting words—(Sands and happiness).

Connecting Mental Picture. The sea shore on a summer's day, and a little child laughing and rolling on the sands, will suggest (happiness).

Suggestive word—(Happiness).

Work is conducive to happiness.

Our Nature needs employment for its order and for its happiness. When man was placed in Eden, in his primitive, sinless, happy state, even then it was necessary he should have employment. He was placed in the garden, but was commanded to dress it and keep it. The Creator has implanted within us something so appreciative of effort, that there is a sweet sensation always attached to the fact of having accomplished something. The command to work is one strictly harmonizing with the necessities and requirements of our Nature. There is always a sweet satisfaction in doing good, and the secret of being truly happy is in trying to make others happy.

The supposed next point is that Work brings its reward.

Suggestive word—(Reward).

Selected word from the concluding passage of preceding remarks is (Trying).

Connecting words—(Trying and reward).

Connecting Mental Picture. School Desk and Beautiful reward books upon it, and three boys hard at work trying to get a reward.

Suggestive word is Reward.

Work brings its reward. We cannot sow without reaping. We cannot toil in vain. Influence never dies. Influence is never powerless. Our works affects some one either for good or evil. If for evil, retribution is certain ; if for good, the reward is quite as sure.

The above illustration will show how easily the various points or paragraphs of a written Discourse (when already committed to Memory) may be so firmly linked together, that in delivering it, the repetition of the last idea or sentence of one point will bring the leading idea of the next point to mind.

This principle may also be applied when the Discourse is not written, providing you have an accurate knowledge of the concluding idea with which you intend to pass away from each point ; especially so, if your concluding idea is embodied in an illustration, verse of Poetry, or well known quotation. This principle can also be applied to connecting the various paragraphs or chapters of a Book, providing the subject matter of each is well known.

The great advantage of this plan is that you work without a key, the matter in itself providing the means of connection, by which the knowledge acquired may be systematically retained in the Memory, without the mind being burdened with the use of any Key, or of any relationship between the Key and the knowledge acquired ; because the more the Memory or Mind can work independently of a Key, the more will it strengthen and develop itself, and the more valuable and reliable will its acquisitions of knowledge be.



CHAPTER VI.

Sunday School Teaching.

THE application of these principles to Sunday School Teaching consists in the Teacher condensing each illustration into a strikingly suggestive word ; and then selecting from the verse in his Lesson the best and most suitable picture word it contains, combining both words by a mental picture.

As an illustration of the principle, take the 16th verse of the 21st chapter of St. Matthew :—" Out of the mouth of babes and sucklings Thou hast perfected praise." To illustrate this passage, suppose you wish to remember, in connection with it, the story of the little "Captive Maid" recorded in the 5th of 2nd Book of Kings. Now, in order to remember the incident of the Captive Maid, you fix upon the word (Maid), and then you select from the verse in the Lesson in Matthew the most suitable picture word it contains. You first look the verse well over, examining every word, and always select that word which gives the mind most to see. Suppose from this verse you select the word (Babes), and you now connect the two words (Maid and Babes) by a Mental picture. For instance, bring before the mind two Babes, and a little Maid trying to carry them. Now read the verse carefully over twice, taking care that as you pronounce the word Babes, you have the above Mental picture vividly before your mind.

This plan must be followed with all other illustrations and verses, and if it is done perfectly you will find it impossible to read the verse, and come to the picture word, without the illustration you connected with it being brought to mind.

CHAPTER VII.

How to Learn a New Language.

THE two primary principles of Memory to be brought into operation are Assimilation and Association. The Association may be of two kinds, Artificial and Natural. Either one or both may be employed according to the peculiar mental proclivities of the person to be taught. If the Pupil has good natural Memory for strange words and sounds, the Artificial Association may be dispensed with, and the natural only employed ; but if he has great difficulty in remembering the sounds of foreign words, the Artificial Association and Assimilation of words may be employed with advantage. We shall first describe and illustrate this Artificial Association, and then proceed to the Natural. Foreign words should always be associated with their English equivalents, but for persons unable to remember strange sounds this is not enough ; therefore it must be combined with Assimilation, and the Association must be both Mental and Verbal, embodying both the sound and the meaning. This is done by comparing the foreign words with those native words which may sound like them. We may generally fail to get sounds exactly alike, but sounds sufficiently approaching them as to only suggest them will answer the end quite as well. Take the following irregular French verbs as examples :—

FRENCH VERBS.

| French word as spelt. | French word as pronounced. | English meaning. | Assimilated English sounds. | Mental and Verbal Association. |
|--------------------------|----------------------------------|---------------------|-----------------------------------|--|
| Vainere | ... vaingkr | ... to vanquish | vain eur | ... to vanquish a vain eur. |
| Courir | ... kooreer | ... to run | ... career | ... to run a wild career. |
| Aller | ... ah lai | ... to go | ... allay | ... to go and his pain allay. |
| Lire | ... lear | ... to read | ... Lear | ... to read king Lear. |
| Plaire | ... playre | ... to please | ... player | ... to please is the work of a player. |
| Écrire | ... aikreer | ... to write | ... acre | ... to write an acre. |
| Dire | ... dear | ... to say | ... dear | ... to say, dear. |
| Rire | ... reer | ... to laugh | ... rear | ... to laugh at those in the rear. |
| Croire | ... kroo ahr | ... to believe | ... crew are | ... to believe what that crew are. |
| Rompre | ... rongpr | ... to break | ... wrong fair | ... to break off a wrong pair. |

The Pupil will only have to read the above Associations once carefully over, when the simple utterance of the meaning—to vanquish—will at once suggest the French word to express it, and so with the others. This work of Assimilation needs care, but to those who with difficulty remember sounds the little trouble is amply repaid. This is a principle I have always largely embodied in my own Methods of Tuition, and it has enabled many to remember strange words who would never otherwise have done so. The following is another example of the principle as applied to French nouns, which is identical in its application with the preceding illustration :—

FRENCH NOUNS.

| French word as spelt. | French word as pronounced. | English meaning. | Assimilated English sounds. | | Mental and Verbal Association. |
|--------------------------|-------------------------------|---------------------|-----------------------------------|--|--------------------------------|
| | | | English | French | |
| La maison | ... mai-zong | House | ... May song | ... The house where they sing a May song. | |
| L'école | ... ai-kol | School | ... a col | ... The School is a kind of a college. | |
| La carte | ... kart | Map | ... cart | ... The map was brought in a cart. | |
| Le livre | ... leevr | Book | ... leave er | ... The book I will leave her. | |
| Le tableau | ... tah-blow | Picture | ... tar blow | ... The picture is spoiled with the tar below. | |
| La plume | ... ploom | Pen | ... plum | ... The pen is stuck in a plum. | |
| La lettre | ... laitr | Letter | ... later | ... The letter can go later. | |
| L'encre | ... angr | Ink | ... anchor | ... The ink has no relation to an anchor. | |
| Le thème | ... teym | Exercise | ... tame | ... The exercise will rude boys tame. | |
| Le crayon | ... kray-yong | Pencil | ... gray on | ... The pencil is used to put gray on. | |

And so in the manner above described may the principal Nouns and Verbs of a Foreign language be learned with speed and pleasure, and with little mental effort ; leaving the mind free and able to grasp the more difficult and abstract parts of speech by the labour saved with the Nouns and Verbs.

NATURAL ASSOCIATION.

Having pointed out in the preceding remarks upon this subject how the Student can be aided by Artificial, we shall now endeavour to shew how much can be gained in learning a new language by Natural Association. Natural Association may be defined as that spontaneous manner in which the mind naturally classifies and reproduces things in connection with each other, either by Analogy or contrast, but without the putting forth of any extra mental effort. This act of Association is natural to the Mind. The Mind can and does associate things of itself, and it is one of the most primary laws of Association that objects and ideas first presented to the Mind in connection with each other, naturally suggest each other afterwards. Thus we find that there are natural affinities between different things and ideas, and nature herself has established a method and a classification which no neglect of man can utterly destroy, and in learning a new language we must strive to utilize this logical and natural classification and sequence of ideas. Not only should every foreign word be brought carefully before the Mind in connection with its English equivalent, but the two words should be thoughtfully compared, their points of analogy and contrast being particularly noticed and commented upon. But besides this, the natural classification of ideas just referred to should be carefully observed, foreign words should be introduced and connected in a manner similar to that in which nature and previous knowledge has linked together in our mind the words of our mother tongue. Suppose, for instance, that a child is sent to a school to learn French. The first elements which he learns should be the beginning links in a long chain of subsequent ideas ; one class or set of words, the ground upon which to build others. The first list of words which he learns should be common objects, say, connected with the school, something

similar to the list of French nouns given in the last illustration, things with which he is brought into immediate contact, and which are naturally linked together in his mind, and any one of which if it is thought about will immediately remind him of another. Thus School will remind him of Map, Map will remind him of Book, and so on. Thus words naturally linked together by force of circumstances will be far more likely to sustain the recollection of each other, than a list of words taken hap-hazard—as is usually the case—of every conceivable nature and order.

Secondly, when a list of Nouns of the above description has been learned, then the corresponding Adjectives which are generally used in connection with them should next be learned and coupled with them thus—large house, good school, large or small book, good pen, beautiful picture, black ink, easy exercise.

Thirdly, the corresponding Verbs should next be learned, those which are generally used in connection with the first-mentioned Nouns and coupled with them, thus—build with house, learn with school, draw with map, read with book, paint with picture, write with pen.

Fourthly, the corresponding Adverbs should be learned and coupled with the Verbs, thus—build firmly, learn quickly, draw correctly, read well, and thus by the pure natural laws of Association alone may one set of ideas be the means of our acquiring and retaining another, and the simplest elements of a language become a foundation upon which to build the whole.

When the objects in the School have served their purpose, the principle above illustrated may be extended to the pupils' homes. Select the nouns there, and use them in a similar way. Then from the house to the garden, from the garden to the farm, from the farm to the foundry, from the foundry to the various city trades or those businesses which are well known even to the young, such as the drapers and the provision merchants, and so on to the seaport with its ships and cargoes, and let the common nouns connected with the sea and ships and the other departments

of knowledge referred to, serve their purpose as the first links in an extended chain of ideas to be afterwards combined with them, as illustrated in reference to the school. With respect to the other minor parts of speech and the various forms of the verb, these may be learned in the usual way, and gradually introduced at the proper time according to the discretion of the Teacher.

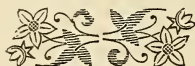


CHAPTER VIII.

How to Remember a Book with Once Reading.

TO remember the contents of a book with once reading over necessitates very *careful* reading, more care than can be given to every book which may be read, but where the book is really valuable, its subject-matter of great importance and directly bearing upon the special requirements of the student, then no amount of care and attention should be considered too much; and if the reader will patiently follow out the few instructions detailed or referred to in this short chapter, he will possess a more complete knowledge of the subject matter of the book after once perusing than he could acquire by many times reading in the ordinary way. First, then, with regard to the time of reading: The book should not be read at the time at which you would take up a novel to refresh the mind when weary with study, or when liable to sleep after a hearty meal. As very much will depend upon the time of reading, the student should first read the instructions given in Chapter 19, on "The physical cultivation of Memory." Secondly, read and follow out particularly the instructions given in Chapter 2, on "How to remember Ideas." Thirdly, when a chapter of the book has been carefully read over in the manner described, and the germ words of the principal ideas underlined, and the sequence of the intermediate ideas carefully noted, then he should carefully reflect and compress into his own words the subject-matter of the chapter. This abstract or synopsis should be compressed into as few words as possible, and should include, if possible, the germ words of the chapter. This plan should be adopted with every succeeding chapter, and the abstract of each written on a scrap of paper before proceeding to another chapter, to be examined in your spare moments and reflected upon, and if possible spoken about to others or to yourself. There is nothing which can make ideas so much our own as to formulate them in our own mind, and express them in our own words. The student should frequently test the suggestive power of his abstract, whether the words will recall the primary ideas, and whether these will recall the successive ideas logically connected

with them ; then, if there is any break in the chain or failing in the connection of ideas, the failure should be observed and guarded against in future. When the book has been read, the abstracts of the different chapters, which may have been reduced to mere sentences, should be still further condensed into one suggestive word, or some word taken from each which will suggest the whole of the abstract, and these representative words, one representing each chapter, should be linked together to form a total abstract suggestive of the order and matter of the whole book. This abstract or Mnemonical suggester may be attached to the book, or otherwise reserved for future reference, as the abstracts of chapters may be also. Its suggestiveness should also be repeatedly tested before laying it aside, to see if each word in it recalls the abstract it represents, and whether each abstract recalls the subject-matter of each chapter.



CHAPTER IX.

How to Remember Verses.

THE brief remarks given under this head do not refer to the learning of Poetry in general, which is fully treated in the Chapter on "How to Remember Ideas," but only refers to the recollection of the order of verses. One plan adopted by some Mnemonists is to connect the first word of each line or stanza with a key-word. So that if a poem has 70 lines, you connect them with the first 70 key-words. The first line with the first key-word, the second line with the second key-word, and so with the others. But it will be seen that though this plan may be of service for some special occasion, and is generally used by Professors in those wonderful illustrations of Poetry repeated during their Lectures, yet for general practical purposes the plan is utterly useless and impracticable. Verses as a rule are easily learned, the rhyme and measure greatly assisting the Memory. The greatest difficulty often felt, is how to remember the proper order of the verses, which verse comes next. The following plan will obviate this difficulty if carefully exercised:—

Connect the last Noun or picture word of one verse with the first Noun or picture word in the verse following.

The connection may be made either by Artificial Association or by comparison adopt either plan with each verse according to the suitability of the words. Take for an illustration a verse or two from Cowper's Hymn on Providence—

God moves in a mysterious way,
His wonders to perform;
He plants His footsteps on the sea,
And rides upon the storm.

The last picture word in this verse is (storm). The first picture word in the next verse is (deep). When repeating the verse for the first two or three times, terminate it as follows—

He plants His footsteps on the sea,
And rides upon the (stormy deep).

Now picture vividly the Deep Sea in a storm, and as you repeat the words storm, or (stormy deep) along with the last

line, let the mental picture suggested be brought vividly before you, and the word (Deep) remembered will suggest the next verse.

The last word in the second verse is (will). The first picture word or word suitable for Association in the next verse is (fearful). If these two words are deemed unsuitable for Artificial Association, compare them as directed in Chapter III. on "How to Remember Words," rule first. Especially reflect upon them and consider what impression or Associations the mind spontaneously establishes between them.

Thus you may reflect as follows—Fear and Will have no connection, no relation to each other, yet the will may be operated upon by fear, the wilful man may be a fearful man. The will of God should be feared, good men do fear it, they are fearful of opposing His sovereign will, hence they are fearful saints. Thus by a simple natural process of analogy or contrast may any two words like these be brought together, into natural Association with each other. When this has been done, the impression should be allowed time to fix itself in the memory, it should be reflected upon in connection with the words (sovereign will—fearful saints). And the first two or three times the verses are repeated over, do not allow yourself to finish any verse without the comparison, Association, or mental impression being brought to mind in connection with it. The first picture word in the next verse is (judge), the last word in the preceding verse is (head). These two words may be easily combined, as they are not abstract words like the preceding two just dealt with. Thus a (judge's head) reflected upon in connection with repetition of the verses would be sufficiently suggestive of the fourth verse.

So in this manner may verses be connected to any extent, without the use of a Mnemonical Key or any other assistance but what is abundantly found in the Poetry itself; and in such a natural and effectual manner that the mere repeating of one verse is a key to the recollection of the verse which follows it.

CHAPTER X.

How to Remember Names.

TO remember names is frequently a difficulty with persons who are possessed of good memories in all other respects; but in this matter very much assistance may be gained by practising the following Rules based upon the three principles of Assimilation, Association, and Suggestion. First as applied to the memory of persons; second as applied to the memory of incidents. First, then, with regard to the memory of the names of persons. The moment a name is mentioned the reader must instantly examine it to see if he can find anything striking or peculiar in it, or in any part or syllable of it. If so, the work of remembering it is easy. Suppose the word is Northcote,—Mr. Northcote or Miss Northcote to whom he is introduced. The word merely mentioned has nothing in it to impress the Memory. but examine it, search instantly for something suggestive in it, and immediately you find each syllable of the word full of suggestiveness. The first syllable—North—carries the mind arcticwards; the second syllable—cote—brings before the mind those airy structures which shelter our feathered pets; but the first syllable, if sufficiently suggestive, should always be preferred and associated with the person, his house, his dress, or his business, either by analogy or contrast. Thus you reflect: Mr. Northcote lives in the north, or never was in the north. Has he been in the south or north? Is he sunburnt or ruddy? Where does he appear to have been? Mr. Northcote is a builder: he gets timber from the north. Mr. Northcote's house faces the south: he will not feel the north wind. These comparisons and assimilations must be made while bearing in mind the appearance and aspect of the person, which should be taken in at the first glance, (see chapter on remembering faces), and which should also be particularly observed. Thus to a person whose manner is cold, indifferent, and reserved, the name of North would immediately assimilate itself; while if his manner was genial, affectionate, and vivacious, the contrast would equally impress the Memory. These associations should also afterwards be reflected upon, and the whole of the name repeated in connection with them. If these particulars are carefully observed, it will be almost

impossible for the reader not to remember the name the next time he sees the person.

We shall now endeavour to show the application of these principles to remembering names in connection with incidents and events. Most persons have little difficulty in remembering the general events which they read in the newspaper columns or in a book of travels, or an interesting sketch of some exciting period of history, but their recollection of them is so vague and indistinct, so lacking in particulars that they are afraid to speak openly of what they have read, because they are often utterly unable to mention either the place, the particular circumstances, or the name of the principal person or thing referred to. This great difficulty, which is a stumbling-block to the usefulness and happiness of many people, can be effectually removed by assiduously observing the following Rule. When you hear or read of any incident or event occurring which in any way may concern you, and which you may have occasion to afterwards refer to or relate, having read it carefully over, fix your whole attention upon three things: (1) the name of the thing or person concerned or primarily referred to in the paragraph; (2) the locality or place of occurrence; (3) select some word which will remind you of the primary particulars of the case. Take for instance the following paragraph from the *Christian World* of March 15th, 1888: "A Station-master's house on a Cheshire Railway was set on fire through a spark from a passing engine dropping into a bird's nest which was built under the roof." Here the word "Cheshire" would suggest the locality, the word "Station" would suggest whose house it was—the Station-master's, while the word "Spark" would remind the reader of the peculiar agency or circumstances by which the fire was brought about. These three words the reader should link together, and then reflect upon in connection with the event, thus: Spark—Station—Cheshire. If this is reflected upon but a moment, and repeated two or three times before allowing the mind to pass away altogether from it, the reader will find that when he afterwards refers to the subject those three words alone will be sufficient to remind him of all the necessary particulars to enable him to relate the incident in a ready and accurate manner. Take another paragraph from the same paper of the same date: "An out-

rage of a more than ordinary brutal character took place at a National School in county Cork. Three men, armed and disguised, entered the school about noon, and one of them shot and severely wounded the teacher, named Patrick Robinson, in the presence of his daughters and the other school children." Here the suggestive words are: Robinson—Cork—School; the first suggesting the person, the second suggesting the place, and the third recalling the peculiar circumstances under which the outrage occurred.

A public speaker when relating or referring to general events, if he can mention to his audience these primary particulars only, he will be regarded as possessing a very accurate memory, and will dispose his audience to listen with greater confidence to all that he has to say.

To remember Historical events the same Rule must be observed. The primary difficulty with many in the recollection of Historical events is to remember the name of the principal actor in the event, this is often owing to the unfamiliar character of the name. Thus most people know how the specific gravity of gold was discovered by a certain philosopher experimenting with Hiero's crown in the bath at Syracuse, but they often fail to recollect the name of the philosopher. This can only be obviated by verbally and mentally associating the name or the first syllable of the name, or otherwise some sound which will suggest the first syllable, with the event. Thus "Hark" would suggest Archimedes, this word might then be associated with the event, thus: Hark, Archimedes cries, Eureka. When the Association is formed, reflect upon it in connection with all the circumstances of the event. To give another illustration, suppose you fail to remember that the name of the Greek athlete who carried the ox was Milo. You connect the first sound with the event thus: Milo could not carry the ox a mile. In this way the great difficulty which some experience in calling up names with events may in a great measure be done away with, if careful Associations are formed.

If the reader has a good visual memory, and easily remembers what he *sees*, it will be also a great advantage to write the names of persons which he finds difficult to remember. This may be done repeatedly, but once writing will generally suffice if each syllable is distinctly shewn, and the writing done in a plain legible style.

CHAPTER XI.

How to Remember Faces.

PERSONS who have great difficulty in remembering faces should first of all pay more attention to cultivating the memory of forms. Half-an-hour every day devoted to Drawing, however simple and elementary the drawing or the knowledge of drawing may be, will amply reward them.

Fix your mind each day upon some common object which you have to pass in the street or elsewhere. Notice it very particularly in all its parts. Take into your Memory as much of the form as possible, whether it be a monument, a house, a boat, a mill, or any article exposed for sale, and then try each evening to draw an outline of it. Above all, be ever trying, how much of the form of anything you can take in at a single glance, and you will soon find that you will be able to carry away as good a memory of the form of anything with only a single glance, as you formerly could by a more careful examination. As you get more perfect you can try to take in the outlines of pictures, and the forms of faces. When walking out, there is ample opportunity to develop this gift of remembering faces. Notice the people you meet, observe whatever is peculiar in their features, their hair, eyes, nose, mouth, and think of them afterwards, and try to recall their features and aspect. Do not attempt to remember every person you meet, and thus overtax your mental powers, but select only one or two at first, increasing the tests afterwards as your Memory of forms becomes quicker and stronger. Notice also the locality where you meet a certain person, as the Memory of one particular aids the Memory of another, and the Memory of the place will materially help you to remember the person. If you are expecting to be introduced, or to do business with, a person, whose name and face you wish to remember, first secure the name, according to the instructions given in Chapter X., for the name is upon your ear but a moment. Then observe the person; let the ear notice the voice; let the eye notice the face, the eyes, nose, and mouth. Let your feelings bear the full impression of the person's aspect or bearing, whether haughty or humble, harsh or gentle, austere or kind. When

you have left him recall your impressions of him, the three-fold impression produced by your sight, sound, and feelings, let the ear recall the tone of voice, the eye recall the features, the form ; and the feelings whether pleasant or irksome, recall the peculiarity of manner which produced them. When this has been done, link these impressions giving you the primary feature of his character with his name, either by similarity or contrast, according to instructions in Chapter X., on, How to Remember Names.

To give you stimulus and interest in the cultivation of this great gift, read all you can respecting the life, the works, and gifts of our great Painters and Sculptors,—men who like Michael Angelo could reproduce the form, the features, and even the emotions of any face after having once looked at it. But here we may remark, that there is a great difference between looking at a thing, and merely seeing it. No painter, however accurate his memory of form and feature, could reproduce the faces of the people whom he merely saw ; it would be necessary for him to look at them, to observe or notice them. Ophelia told Hamlet that he “looked upon her face as though he would draw it.” And if we would remember a face, this is how we must look at it, with a motive, with an interest, for the Memory, like the photographer’s plate, is capable of receiving durable impressions and pictures of what the eye sees, but it is only when the light of intelligent interest is focussed upon the object that the Memory receives the impression in a durable form. Thus it will be seen that to remember faces, the three principles affecting Memory which are to be observed and utilised are, the first Impression, Association, and Reflection.



CHAPTER XII.

Geographical Memory, or Memory of Places.

THE memory of localities is generally much stronger and more fully developed in uncivilized races than amongst ourselves ; without this power they would be unable to tell their whereabouts in the great solitudes which they often have to traverse, and seldom be able after following the chase to find their way home again. Having none of the scientific aids which we possess and which civilization has furnished, without compass or sign-posts, yet the Indian will find his way through the trackless wastes with almost unerring certainty,—and why ? Because his memory of localities has been continuously exercised ; he observes every surrounding object with the minutest care. The forest trees around might appear to us almost all alike, but to him they are very different ; the track of feet over the fallen leaves which no civilized eye could distinguish is to him unmistakably plain. If the passing traveller has turned aside but a moment he recognizes the place ; yea, if a leaf has been disturbed his practised eye perceives it, and as he plods his way homewards his quick eye glances from side to side, recognizing each familiar tree, and each peculiar form in the forest growth as he passes on.

Hence we perceive that the very foundation of the savage's powerful memory of localities is his habit of keen interested observation. If he allowed his eyes to wander aimlessly about, he would be as likely to be lost as any one else, but he observes surrounding objects. But how does he observe them ? First, with interest ; he knows the importance of what he is doing and how much depends upon it, hence he rivets his attention upon the objects he sees. Second, he observes minutely, notices every particular, for without this localities cannot be remembered. If it is a tree, he notices its size, its trunk, its leading branches, its position, its appearance from different directions. Third, he reflects, he does not immediately lose sight of what he has done, but looks within at the picture which his memory has received of the place, and compares, to see if it be correct. This he does repeatedly, every time he passes the place, and even at

home he reflects, for he has no knowledge of maps, his fingers draw no sketches, but upon the scroll of his memory his own intense observation has imprinted it, there to be looked upon and to guide him through the pathless woods. Hence if the reader would have a better memory of localities and places he must henceforth assiduously cultivate the three primary laws affecting the memory of places which we have just mentioned as being unconsciously, though rigidly, observed by the savage.

It is very desirable that the teaching of Geography should be more general and extensive in our public schools, for it is seldom that a mind early trained in the principles of Geographical knowledge, made familiar while young with maps, and with the memory of the forms and positions of countries, has any difficulty when matured in the recollection of places. Considering that we are the greatest mercantile nation, it is remarkable that Geography has not held a first place in our national education. One great reason why we are not more proficient as a people in this branch of knowledge has been our defective methods of teaching the subject, owing in some measure to the want of proper appliances. Considering the perfection of our scientific methods of reproducing colours, it is remarkable that we have not been able to produce maps of countries more picturesque, more impressive and striking to the youthful mind. As we have before mentioned, in the training of the young especially, much depends upon the first impression; and when a map of any country is presented before a Class, the memory of it will greatly depend upon the amount of attention which is given to it by the scholars. If the teacher can fix their attention upon the outline and excite their interest in the various plains, mountains, and rivers, indicated upon its surface, he will succeed in getting the map remembered. This can only be done with able teaching. The teacher should not only know the map himself, but he should have an intimate knowledge of the various countries or places outlined upon it. To know this is not so difficult as formerly, for now the countries of the world are better known, and books of travel are plentiful and cheap, and in tracing, say the course of a river, the nature of the country or countries through which

it passes should be carefully described, and also the varied scenery upon its banks. Particular attention should be given to the course of the river, its bends and the junction of its tributaries; the scenery of these localities should be, if possible, described; or if there be cities or towns in the neighbourhood, any information respecting these, their character or their history, will serve to fix the locality more vividly upon the memory of the scholar.

Those whose memory fails them in this respect so much, as to make it difficult to find their way about, should observe the following directions. If you have to find your way about a strange town or district, always carry a small pocket compass. Observe well the place or building you start from, whether it be a railway station, market place, town hall, or any well-known building or place. If possible, view it from different directions, under any circumstances do not leave it without looking back and noting its appearance, so that you will easily recognise the place when you see it again. Having started on your journey, look at your compass and be sure of the direction you are going, which we will suppose to be due north. Before you make a turn think how far you have walked in that direction, and then notice in what other direction your way lies. By doing this you will know what streets or roads run parallel with each other, how far you digress east or west of your first course, and whether you are going nearer to or further from your first starting point, or walking in an eastward or westward angle to it. Care must be taken to notice the names of the streets at the principal turns you make, also turning round to take in its appearance so as to be able to remember it by sight as well as by name, should you wish to return the same way. If commercial travellers or any one entering a strange town will observe these simple directions they will be saved much time and annoyance, and always have an idea how far, and in what direction, they are from their starting point.

The above remarks only apply to the memory of strange localities, and may be of use to all who go from home; but some persons fail to remember the localities of their own immediate neighbourhood and the intersecting streets of their own town or parish. Such persons should, in addition

to the directions before mentioned, make a rough sketch-map of the localities which perplex them, showing how the streets intersect each other. This may be done either by themselves or by a friend for them, and should be frequently looked at and studied until the whole outline is imprinted upon the memory, and the primary features of the main streets and the streets branching from them are thoroughly known.



CHAPTER XIII.

How to Remember Mathematical Formula.

TO remember Mathematical or Chemical formula where many figures are employed, the example of the chemical elements with their atomicity and specific gravities given on page 34, must be followed, using one word to express the whole number, and another to express the decimal. But to remember the various Algebraical or other formula the best plan is for the student to write them, clearly and legibly, closely observing their form and remembering their significance. Never write or copy a formula without being certain of its meaning. Those who have great difficulty in remembering them should do this repeatedly until the eye has become accustomed to the form and the mind to its meaning.

In introducing, children especially, to the learning of Geometry, to enable them to remember the forms and names of the various kinds of angles, triangles, and four-sided figures, the principle of Homophonic analogies combined with familiar or even ridiculous objects may be employed to impress the memory with the shape and names of hitherto unfamiliar forms. Thus the body of a carriage or 'Bus, which the teacher may draw on the blackboard, with its top knocked awry by passing under a low bridge, and its whole framework leaning backward, would suggest the form of a Rhombus, and the word "'Bus" would assist in the recollection of the name. A perspective view of a swing looking-glass would also suggest the form of a Rhomboid, and if the teacher represented a boy looking through it and making grimaces, and call a rum boy, it would suggest the name, and the first object would impress the form of the figure. And so may all the forms and symbols which it is sometimes necessary for children to learn, and which some cannot remember, be impressed upon their memory by the aid of familiar objects around them. This power of comparison and assimilation is a great factor in the work of training the memory, especially if used by a skilful and ingenious teacher.

It is upon the above principle that the Phonetic Short-hand Alphabet is taught by a diagram in chapter 14, where the whole of the consonants, both their form and sound, are embodied in familiar objects, and by which they may be learned almost at first sight.




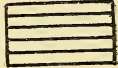













CHAPTER XIV.

How to Learn Shorthand.

BY the Diagram on the adjoining page the whole of the consonants of the Phonetic Alphabet may be learned almost at first sight, when the Shorthand characters are placed in the blank column in line with the letters or sounds which they represent. In consequence of Mr. PITMAN not permitting the author to print his Phonetic Alphabet, the student is requested to fill it in down the blank column reserved for the purpose. The safest way to do this is to write them first on a slip of paper cut to the breadth of the column and paste it in afterwards. This will enable the pupil to obtain a more perfect copy of the Alphabet both as regards the writing and the position of the characters, for should he spoil one copy he can write another. Alphabet sheets may be easily obtained of any Stationer or Teacher of Phonography, or from Mr. PITMAN, for 1/- per gross. The objects or figures of the Diagram, by their position, not only show the shape of the Shorthand character, but also the sounds which they represent. Thus, take the third figure—a charger or war-horse—the position of the horse indicates the shape of the Shorthand letters *Ch* and *J*, being a down stroke from right to left, while the word “Charger” gives both the sounds which the character represents.

It will be noticed that the first sixteen consonants called the explodents and continuants are taken in pairs, as *P—B*, *T—D*, *Ch—J*, &c., each pair being represented by one character only, the two letters being distinguished by a heavy or light stroke. So on the Diagram of the first eight pictures, each represents a pair of consonants, and both must be written in the column opposite each word and figure, and on a line with them. The single consonants begin with *M* and *N*, which are both suggested by Moon, the upward part of the figure showing the shape of *M*, and the lower part the shape of *N*. The shape of *Ing* is shown by the half of a Ring; *L* is suggested by a steep Hill; and the shape of the two *R*'s is indicated by two large cracks in the Mirror. So the form of *W* and *Y* is indicated by a piece of Yarn and a piece of Wire bent into the required shapes, and last, that of *H* is indicated by a Hoop and stick.

| Letter. | Name. | Shorthand Characters. | Word and Objects to express their Sound and Form. |
|---------|-------|-----------------------|---|
| P | pee | | |
| B | bee | | Piano ...  |
| T | tee | | |
| D | dee | | Tedeum ...  |
| Ch | chay | | |
| J | jay | | Charger ...  |
| K | kay | | |
| G | gay | | Cane-gate ...  |
| F | ef | | |
| V | vee | | Fan ...  |
| Th | ith | | |
| 'Th | the | | Smithy ...  |
| S | ess | | |
| Z | zee | | Bessy ...  |
| Sh | ish | | |
| Zh | zhee | | Fishy ...  |
| M | | | Moon ..  |
| N | | | |
| NG | | | Ring ...  |
| L | | | Hill ...  |
| R | | | Mirror ...  |
| W | | | Wire ...  |
| Y | | | Yarn ...  |
| H | | | Hoop ...  |

CHAPTER XV.

How to Remember Isolated Numbers.

ACCORDING to the application of the principles so far to numbers, the student will have perceived that the number is made to hang upon the event or fact, the one is associated with the other, and the recollection of the event brings to mind the date of its occurrence. But the reader may have occasion some time to wish to remember numbers by themselves, having no facts whatever connected with them. When this is necessary, the Locality principle invented by Simonides, the Greek poet, must be brought into operation and utilized in connection with the Rules. Simonides' plan of remembering ideas was to deposit images or emblems suggestive of them in different localities he was well acquainted with, so that when he thought of the locality he would also remember the idea. In like manner the student may select words from the Key expressing numbers and deposit the words in localities he well knows and in their proper order. Suppose you have to remember the following four groups of figures—135, 644, 781, 526. You select a room in your own house, and you make use of the four sides of the room to remember these four groups of figures. You take those words from the Mnemonical Key which represent each group and deposit them in the four sides of the room. Suppose you make use of the fireplace side first. Then the side on the left of the fireplace for the second. The side opposite to the fireplace for the third, thus going round the room from left to right, taking the side of the room to the right of the fireplace for the fourth group of figures. The key-words for the first number (135) are as follows :—You take “Drum” to represent 1; you take the key-word “Beehive” to represent 35. Thus you mentally place a Drum and Beehive on the first side of the room against the fireplace. Let your imagination be brought actively into play, and allow your mind's eye to see the objects very distinctly in connection with the place or locality where you have fixed them. The key-words representing the next number (644) are “Fox” and “Mirror.” You deposit these objects on the second side of the room. The

key-words representing the third number (781) are "Sieve" and "Hat-stand." You then deposit these objects on the third side of room opposite the fireplace. The key-words representing the fourth number (526) are "Knife" and "Shoeblack." These you mentally place on the fourth side of the room.

Now if you allow your mind to go back to each locality you will mentally see the objects you placed in each, and the objects will suggest the numbers they represent according to the Rules.

By the use of two rooms you may remember eight numbers instead of four, and by the use of four rooms you may remember sixteen groups of figures, and so you may extend the principle to innumerable localities both within and without your own home.



CHAPTER XVI.

How to Learn the Calendar.

IN the Calendar given below the following particulars must be observed:—Each of the underlined syllables suggest by their sound the date of the first Sunday in each month, while the first sound in each Association suggests the name of the month, thus:—“Gentle” will suggest January, and “sex” will suggest 6 according to the Rules of the System. Therefore, knowing that the first Sunday in January is on the 6th, you easily get the date of any other day in the month. Suppose, for instance, that you wish to know upon what day of the week the 29th of January falls. Knowing that the first Sunday is on the 6th, you calculate by weeks until you reach the Sunday nearest the date, thus: 6, 13, 20, 27,—the 27th being the nearest Sunday, the 29th must be the on the Tuesday. Thus the underlined sounds of each Association giving the first Sunday in each month, the day of any other date is obtained by calculating from the first Sunday. The reader will have little difficulty in forming for himself a Calendar for each year, which he may commit to memory in a few minutes, by pronouncing the first syllable in the name of each month, along with its corresponding Association.

CALENDAR, 1889.

| | | |
|-----------|---------------------------|-------|
| January | ... Gentle <u>sex</u> | ... 6 |
| February | ... February <u>y</u> | ... 3 |
| March | ... Marsh <u>y</u> | ... 3 |
| April | ... A <u>puff</u> | ... 7 |
| May | ... May <u>flies</u> | ... 5 |
| June | ... <u>June</u> | ... 2 |
| July | ... <u>Julia's</u> off | ... 7 |
| August | ... Aug <u>ur</u> | ... 4 |
| September | ... September <u>gone</u> | ... 1 |
| October | ... Ox <u>back</u> | ... 6 |
| November | ... No <u>bod</u> y | ... 3 |
| December | ... Dem <u>on</u> | ... 1 |

CHAPTER XVII.

How to Perform Feats of Clairvoyance.

TO accomplish feats of Clairvoyance it requires two pupils to act in agreement with each other. Suppose that two pupils well acquainted with these principles are in a company of friends, one may be blindfolded and placed anywhere in the room, and the other may hold up any coin which any of the company may produce, and then the pupil who is blindfolded may be able to tell instantly what it is. To do this requires a perfect knowledge of the rules of sound, so as to be able to tell instantly what figures any word signifies when it is pronounced. The pupil putting the question simply emphasizes some word indicating by its sound the value of the coin. Thus suppose a shilling is held up, the questioner uses some word to indicate the number 12. Thus the words "Can you" emphasized in the question would reveal the number or value of it.

Following is a set of questions, one for each current coin; the underlined words indicate, according to the Rules, the number of pence or shillings in each.

- 1d. What is this in my hand ?
 $\begin{array}{c} 1 \\ \hline \end{array}$
- 3d. What may this be ?
 $\begin{array}{c} 3 \\ \hline \end{array}$
- 6d. Be quick and say what this is.
 $\begin{array}{c} 6 \\ \hline \end{array}$
- 1/- Can you tell what this is ?
 $\begin{array}{cc} 1 & 2 \\ \hline \end{array}$
- 2/- Can you, Sir, tell what this is ?
 $\begin{array}{cc} 2 & 4 \\ \hline \end{array}$
- 2/6 Please show what this is.
 $\begin{array}{cc} 3 & 0 \\ \hline \end{array}$
- 10/- See if you can show what this is.
 $\begin{array}{cc} 1 & 0 \\ \hline \end{array}$
- 20/- Do you know what this is ?
 $\begin{array}{cc} 2 & 0 \\ \hline \end{array}$

To indicate a half-penny, always bring in the word "laugh," or any word sounding like "half," as:—Do not laugh, but tell me what this is; or—Have the goodness to say what this is.

CHAPTER XVIII.

General Association of Ideas.

WITH regard to the recollection of distinct ideas, facts or events, in connection with each other, they should be condensed into suggestive words or parts of words, and then combined into one sentence or idea, or mental picture: the latter being more suitable for the recollection of immediate engagements. Suppose, for instance, a lady is going into town to order meat and eggs, and to purchase some stationery and drapery goods. She has four distinct engagements to remember. These may all be combined into one mental picture, and associated with some locality she knows she will have to pass. Suppose she has to pass a certain Butcher's shop. In connection with this shop she brings before her mind a picture of this kind:—A boy has thrown an Egg through the window and knocked over a bottle of Ink among the meat, and the Butcher is wiping it up with a roll of white Calico. If this picture is perfectly associated with the locality, it will be almost impossible to pass the shop without the scene connected with it being brought to mind; and when the shop or locality is not in sight, the thought of the locality will be sufficient to call up the association the parts of which will instantly suggest the various engagements. Thus Ink will suggest Stationery, Calico will suggest Drapery, and so with the others. The success of such Methods as the above is entirely dependent upon the extraordinary influence Locality exerts over the memory, which is far greater than is generally supposed.

When it is requisite to remember a great number of engagements, the Key should be used, and the various engagements connected with the key-words in their required order; but for a few immediate engagements the plan just illustrated is more generally useful.

To combine distinct Facts or Events, striking ideas or sentences should be used instead of pictures.

PRODUCTS OF COUNTRIES.

Suppose, for instance, you desire to remember that Cotton is chiefly produced from America and the East and

West Indies. You embody the fact in a Memory Sentence or Association. The sentence should be short, and contain a striking idea embracing all the things or places referred to, or something which will suggest and bring them to mind.

Take the following for example. Association: Cotton grows *East* and *West* o'er many a *merry acre*. The words in italics will suggest the places. East and West will suggest East and West Indies, and "a merry acre" will suggest America.

Take another example. Countries from which we principally obtain Tea: India, China, Assam, and Japan. Association: *India* and *China* asked *Japan* to have a cup of Tea. The first part of the word *asked* suggesting Assam.

TO REMEMBER EVENTS IN A REQUIRED ORDER.

When it is desirable to remember the principal events in any reign or period of History in their proper succession, the events must first be condensed into suggestive words or parts, and these combined as before into Memory Sentences.

Take for example the four principal events in the reign of Elizabeth.

- 1.—The Birth of Shakespeare.
- 2.—Excommunication of Elizabeth.
- 3.—Execution of Mary Queen of Scots.
- 4.—The Destruction of the Spanish Armada.

Memory Sentence: *Shakespeare* saw the Queen *expelled* and *Mary beheaded* before the *Armada* came.

The italic words suggest the events in their proper Historical order.

Take another example. The eight principal events in the present reign of Victoria.

- 1.—The China War.
- 2.—The Corn Law agitation.
- 3.—Russian War.
- 4.—Indian Mutiny.
- 5.—Death of Prince Albert.
- 6.—Cotton Famine.
- 7.—Laying of the Atlantic Cable.
- 8.—Opening of Suez Canal.

Memory Sentence : (From *China* for *Corn* they *rush*, and *India* as well, when *Albert* laid a *Cotton Cable* across the great *Canal*.

The eight italic words suggest the eight events in their Historical order

Of course the dates of the different events are learned separately, as described in the Second Lesson upon Figures.

The design of this Rule is to enable Students to keep in mind, with little trouble or mental effort, an accurate knowledge of the proper succession of the principal events in any reign or period of History.

Great care should be exercised in the choice of events, that those are selected which are consequently connected with many minor events, so that the recollection of one will be sufficient to bring to mind a train of others. In the example just given, the recollection of the Corn Law agitation will bring a host of other events to mind consequently connected with it ; so the Cotton Famine will likewise suggest the American Civil War, because we know that one was the result of the other. Thus it will be readily seen what an accurate knowledge of History these principles will enable a Student to attain ; and not only an accurate, but a ready knowledge, by which he is able, the instant a period of History is mentioned, to recollect the various events connected with it in their proper order.

Thus it will be evident to every Student—without further multiplying illustrations—that this principle of condensing ideas into suggestive words or parts, in order to combine them into striking sentences, will admit of a wide and various application with the exercise of a little ingenuity on the part of each Pupil.

In conclusion, we need hardly remind you, that in order to derive every advantage possible from these principles, it is necessary that they should be constantly and perseveringly practised ; and if this is done the mind will gradually acquire quickness, strength and confidence in the use of them ; and lasting mental, and also physical, benefits cannot fail to be derived.

CHAPTER XIX.

The Physical Cultivation of Memory.

THE condition of Memory is more influenced by our condition of health than is generally supposed. The organs of the brain through which the mind operates, and by which the work of recollection is effected, and the phenomena of Memory produced, are absolutely dependent upon the healthy condition of our whole system for the character of the work they perform. This is only too evident from the effect which sickness or extreme old age has upon the Memory. When through decay or lowered vitality the pulsations of the heart are weakened, and that organ is unable to force the proper amount of blood to the brain, then the Memory is unable to rightly perform its work—its operations are slow, and its impressions indistinct. It is often said, and generally regarded as true, that loss of Memory is a natural result of age, but if this is true it is only true in part; the Memory of age is often peculiar and distinct from the Memory of youth. The Memory of youth is generally characterized by extreme sensitiveness, is impressed by little matters, easily remembers the most trivial things; hence, the great word-memory the young have, the power often of repeating what they do not understand. This is referred to in "Hamlet," when he says:—

"I'll wipe away all trivial fond records,
All saws of books, all forms, all pressures past,
That youth and observation copied there;" &c.

But the Memory of age is characterized by powers very different, though equally necessary and becoming to advanced life, for though the Memory is weakened for the retention of words and forms and trivial impressions, it on the other hand is strengthened in its power to grasp ideas, and to mould and formulate them to its own purposes. The Jews, like many other ancient people, observed this peculiarity of Memory, but they had the wisdom to act upon it in their educational system, and to prevent any loss or perversion of these powers of acquisition peculiar to youth and early manhood, their law forbade them to enter into public life or to commence any public career or profession until the

age of thirty was attained. In many respects this was a great national saving, as it tended to discourage that early development and precocity of genius which frequently ruins the constitution, undermines the health, and deteriorates the nation physically. Also it allowed the mind to go on acquiring knowledge as long as the powers of acquirement lasted, and did not force into activity the superior mental powers until they were perfectly developed and fully ripe for their work.

A nation which hurries too much the mental development of its people runs a great risk of having all moderately clever, but only a few minds will develop gigantic powers whose higher mental gifts are forced into activity long before the period of mind-storing is passed. Another fact which will account for this apparent weakening of Memory in the matured is the knowledge that in our youth the higher mental powers of reflection, abstraction, judgment, and reason generally remain undeveloped, and only the powers of perception and Memory are brought into constant activity, these two powers absorb all the blood which feeds the brain, and are thereby kept in perfect health and vigour, but as age advances these other powers are called into activity and take a share of the nourishment which was formerly monopolised almost wholly by the Perception and Memory. Hence the Memory cannot perform its operations with that readiness and vividness which formerly characterized it, as it has been partially sacrificed to the development of the other powers, but let even the moderately aged turn their attention back to the cultivation of their Memory, and if they will give it daily and regular exercise, the blood will again be drawn gradually back to its old channels, the Memory will recover much of its former power, if not its former quickness, and will, by the absorbing attraction of regular exercise, take its share of nutriment along with the other organs of the brain. We have observed that there is often in the aged an aversion to what has been termed "Memory drill;" but the daily exercise of Memory referred to above is not intended to be an irksome task but a customary pleasure, with that delicacy of taste and appreciation of the good and beautiful which maturity possesses, it has an advantage which youth has not of being ever able to

provide itself with literary morsels of superior excellence wherewith to make this daily exercise of Memory a daily pleasure. The work daily allotted should be very small, consisting only of a passage from some Author or a text of Scripture; the passages should be carefully selected, and possessing such force and beauty as to excite the activity and admiration, and thus secure the combined assistance of the other mental powers. The passage should be learned in the morning or at evening. If it is learned in the morning it should be repeated in the evening just before retiring to rest; if it is learned in the evening it should be repeated in the morning soon after awaking, before the mind is directed to any other subject, and before this daily exercise of Memory has been repeated long it will be found that the passages are much more easily and quickly learned than when the practice was first begun.

Having endeavoured to show in the preceding introductory remarks that loss of Memory is not the inevitable result of age, but is frequently the result of mere changes in the mental activities, and also of inattention and neglect of the requirements of Memory, we shall now very briefly give a few rules and reasons bearing upon the Physical Cultivation of Memory in general.

First, then, we observe that perfect Memory greatly depends upon perfect nutrition. Unless the digestive powers are preserved in good order, and the food properly converted into blood, the Memory must suffer loss, because (1) no other part of our physical organization requires the same amount of blood in proportion to its size as the brain does; (2) according to the force and rapidity with which the blood is directed to the brain are the operations of Memory performed; thus, in the case of fever, when the blood, though charged with impurities, circulates with extraordinary rapidity, the brain is excited and the Memory is remarkably active; the opposite extreme is observed when the action of the heart is weak, and the vitality low through protracted illness. Thus, if we would preserve the Memory in equal and healthy activity, we must preserve our nutrition perfect and the circulation of the blood to the brain equal and regular.

Second. Perfect Memory greatly depends upon enjoyable invigorating exercise. Bodily exercise is the only means by which the blood can be made to circulate rapidly and at the same time healthily. Much of the superior quickness and activity of the Memory of children before referred to is owing to their constant activity and love of play.

Third. Perfect memory also greatly depends upon regular meals and rest. We could give many instances, if space would allow, to show how excessive fatigue makes the Memory at times utterly powerless. The Memory is always most active immediately after sleep—things which before were but very indistinctly remembered then come vividly before the mind. The Memory should never be taxed when the brain and body are weary, or when the blood is absorbed by the stomach in its work of digestion as is the case immediately after partaking of a meal.

Fourth. Perfect Memory depends much upon plain nourishing food. Anything which stimulates the brain should be avoided, as some of our most common narcotics do. The action of opium upon the brain and Memory is well known. Under its influence the Memory is remarkably active and powerful, but its permanent effect is to enfeeble and destroy it altogether. On the other hand many of the drugs and medicines now used for sleeplessness, catarrh, neuralgia, and other complaints affecting the head, have a tendency to retard the circulation of blood to the brain, like Bromide of Potassium. The almost certain result of the use of these medicines is the loss of Memory-power. Hence the great importance of this last Rule, keeping the body in health by plain and nourishing food, avoiding those irregularities which often bring about that state of health when to alleviate pain and secure rest such medicines are administered. It would be foolish to say that we could do without medicine altogether, but as a people we resort to drugs too frequently, and use them too readily, forgetting, and in many instances not knowing, the heavy penalty we pay for the use of them. If this fact were more generally considered, it would have a tendency to make us careful and more disposed to take the necessary trouble of more frequently arranging and altering our diet, and also our habits, when

getting physically out of order, instead of allowing the first beginnings of evil to go on unchecked, until recourse to strong medicine is necessary.

This chapter on the Physical Culture of Memory would be incomplete if nothing was said directly bearing upon the important matter of food. As we have only just referred to this matter in a general way, we would take this opportunity of referring to it again. As we have before shown, our condition of Memory greatly depends upon our condition of body, and this very much depends upon the character of our food. It is very necessary, as the brain absorbs such a large quantity of blood, that the diet, while it is plain and digestible, should also be very nourishing. Many recommend that fish should form a regular and important part of a student's diet, on account of its phosphoric element, and its beneficial influence upon the brain, but fish is not agreeable to some persons, and the stomach seldom easily digests the food which it naturally dislikes. If fish is agreeable, it is advantageous as a brain diet, but it should always be combined with other kinds of food. No kind of food, however agreeable and nourishing, should be taken too frequently. It has been found that even rabbits and guinea-pigs fed exclusively and continuously on wheat, oats, barley, or cabbage, died in fifteen days, while if fed upon any of these substances alternately or in succession they remained in perfect health. Thus we see that in all forms of animal life frequent change of food is necessary in order to change and renovate the blood and preserve it pure.

In concluding this chapter we would revert to something but incidentally referred to earlier in the chapter, viz.: the time most favourable for exercising the Memory. It has been found that the Memory, as a rule, is most sensitive and active in the early morning or in the calm of the evening, when the mind, resting from the activities of the day, naturally reverts to itself, and settles down into that state of calm to which everything in nature around us is so conducive. Cicero, Cato, and many other distinguished men whose names we have not space to mention, have selected this period as the most suitable in which to exercise their Memories. Persons with feeble Memories for events should always before they retire review the circumstances

and events of the day, and thus test their recollection of what has occurred; many by this practice alone have strengthened their Memory for events in a remarkable manner.

But not only should a proper time be selected for exercising the Memory, but the exercise to be profitable must take place at regular intervals, not too frequently, lest the mind should be burdened and confused, and not too long a time allowed to elapse between the exercises, or the benefit gained by one exercise will be lost as a preparation for another. The exercise of Memory must be regular, however little that exercise may be, and as we have before mentioned what is learned in the morning should be repeated in the evening, and what is learned in the evening should be repeated in the morning.



GLOSSARY OF WORDS.

— :: —

WORDS REPRESENTING THE CYPHER.

| | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|
| shew | ho | toad | old | whole | coast | tone | boat |
| show | hoe | | scold | | host | zone | cote |
| sloe | lo | doze | sold | coach | most | | coat |
| slow | low | froze | told | broach | post | cope | dote |
| snow | grow | close | | poach | toast | hope | float |
| so | know | hose | bole | roach | | grobe | gloat |
| sow | mow | chose | cole | | blown | mope | groat |
| stow | no | knows | coal | home | sewn | pope | goat |
| though | oh | nose | bowl | comb | sown | rope | lote |
| throw | row | rose | dole | dome | bone | scope | mote |
| throe | roe | prose | droll | foam | cone | soap | moat |
| trow | sew | pose | foal | loam | crone | | rote |
| tow | woe | those | goal | roam | flown | clove | note |
| toe | | foes | mole | rome | grown | drove | quote |
| bow | bode | | pole | | hone | grove | oat |
| blow | goad | bold | role | globe | lone | rove | smote |
| crow | lode | cold | roll | robe | loan | stove | stoat |
| dough | load | foaled | scroll | Job | moan | throve | throat |
| doe | mode | fold | shoal | probe | own | wove | vote |
| flow | ode | gold | soul | | prone | hove | wrote |
| foe | road | hold | sole | boast | shewn | | |
| glow | rode | mold | stole | ghost | stone | bloat | |
| go | strode | mould | toll | roast | throne | mote | |

WORDS REPRESENTING NUMBER ONE.

| | | | | | | | |
|------|------|--------|--------|--------|-------|-------|--------|
| run | tun | champ | dance | hand | man | plant | pang |
| shun | ton | tramp | lance | land | clan | pant | slang |
| bun | son | cramp | glance | strand | scan | rant | sprang |
| fun | won | damp | trance | sand | span | scant | |
| pun | | lamp | prance | stand | pan | slant | swan |
| hun | cram | swamp | | wand | tan | aunt | con |
| gun | ram | stamp | and | | wan | | don |
| done | dam | | band | bann | | bang | bon |
| nun | ham | font | gland | can | ant | clang | on |
| shun | swam | want | bland | fan | cant | fang | one |
| sun | | | brand | ran | chant | rang | none |
| stun | camp | chance | grand | dan | grant | bang | |

Words Representing Number—One (Continued).

| | | | | | | | |
|--------|--------|-------|------|-------|--------|--------|--------|
| bond | strong | plump | drum | thumb | | stung | bunt |
| fond | throng | pump | dumb | plumb | bung | sung | punt |
| pond | thong | rump | gum | numb | rung | swung | |
| wand | | stump | glum | | chung | tongue | drunk |
| conned | bump | trump | hum | once | flung | young | monk |
| | clump | thump | mum | dunce | dung | wrong | junk |
| gong | crump | | rum | bunch | hung | | slunk |
| wrong | dump | bomb | plum | lunch | lung | blunt | sunk |
| song | hump | come | sum | hunch | slung | brunt | trunk |
| long | jump | chum | scum | punch | sprung | grunt | bunk |
| prong | lump | crumb | some | munch | strung | hunt | shrunk |

WORDS REPRESENTING NUMBER TWO.

| | | | | | | | |
|------|---------|-------|--------|-------|-------|-------|--------|
| blew | hew | yew | rook | bloom | lune | swoop | choose |
| brew | hue | you | shook | broom | moon | troop | loose |
| chew | Jew | woo | look | doom | noon | whoop | moose |
| clue | Kew | | Luke | gloom | soon | | news |
| cue | new | brood | took | groom | swoon | boot | use |
| crew | knew | food | | boom | | loot | duce |
| do | shoe | mood | mule | loom | hoop | mute | fuse |
| due | screw | rood | rule | room | coop | lute | boose |
| drew | strew | hoof | yule | tomb | droop | brute | ooze |
| ewe | shrew | roof | school | | soup | root | noose |
| few | threw | proof | fool | spoon | dupe | route | goose |
| flue | through | | cool | boon | loop | shoot | Ouse |
| flew | too | book | stool | June | poop | suit | |
| glue | true | cook | pool | prune | scoop | soot | |
| grew | view | brook | | tune | stoop | | |

WORDS REPRESENTING THREE.

| | | | | | | | |
|------|------|-------|--------|-------|--------|--------|-------|
| bee | key | she | beach | teach | leak | sleek | feel |
| be | knee | the | bleach | | Greek | sneak | heal |
| sea | lea | thee | breech | beak | leek | speak | heel |
| fee | lee | three | each | bleak | meek | squeak | keel |
| flea | me | wee | leach | cheek | peak | week | kneel |
| flee | pea | we | peach | creek | pique | weak | meal |
| glee | plea | tree | preach | creak | reek | | peal |
| free | quay | | reach | eke | streak | deal | peel |
| he | see | beech | speech | freak | shriek | eel | reel |

Words Representing—Three (Continued).

| | | | | | | | |
|--------|--------|---------|--------|-------|-------|--------|---------|
| steal | stream | fleece | cheat | bleed | clear | sphere | weep |
| steel | teem | grease | eat | creed | dear | shear | |
| squeal | team | lease | feat | breed | deer | stear | cleave |
| teal | theme | niece | feet | feed | drear | steer | grieve |
| veal | | peace | fleet | greed | fear | tier | eve |
| weel | been | piece | greet | freed | ear | tear | heave |
| wheel | bean | | meet | knead | year | near | leave |
| zeal | clean | beast | mete | lead | here | pier | sleeve |
| seal | dean | east | meat | mead | hear | | thieve |
| | green | feast | heat | weed | jeer | creep | weave |
| dream | keen | least | neat | need | leer | deep | |
| cream | lean | priest | peat | plead | Lear | cheap | breeze |
| bream | mean | | pleat | read | mere | heap | freeze |
| beam | mien | breathe | seat | reed | near | keep | ease |
| deem | queen | seethe | sheet | seed | peer | leap | please |
| gleam | screen | sheath | sleet | speed | queer | neap | sneeze |
| ream | seen | wreath | street | steed | rear | peep | squeeze |
| scream | scene | | sweet | | sear | reap | tease |
| scheme | spleen | wheat | treat | beer | seer | sheep | wheeze |
| seam | wean | beat | | bier | slear | sleep | these |
| seem | | teat | bead | cheer | smear | steep | |
| steam | cease | bleat | deed | blear | spear | sweep | |

WORDS REPRESENTING—FOUR.

| | | | | | | | |
|------|-------|--------|--------|--------|--------|-------|---------|
| are | aire | pair | where | heart | birth | fir | third |
| bar | air | pear | weir | hart | dearth | cur | word |
| car | bare | rare | | part | earth | err | |
| czar | bear | scare | card | smart | mirth | fur | sward |
| far | glare | share | bard | start | | her | horde |
| jar | care | snare | guard | tart | churl | sir | cord |
| mar | chair | spare | hard | quart | curl | slur | lord |
| par | dare | square | lard | wart | earl | spur | ward |
| spar | fare | stare | marred | thwart | furl | stir | |
| star | fair | stair | yard | | girl | | dirge |
| tar | flare | swear | | birch | hurl | heard | purge |
| for | hare | tear | art | church | pearl | herd | scourge |
| nor | hair | tare | cart | lurch | whirl | sherd | serge |
| or | lair | their | chart | perch | twirl | bird | surge |
| war | mare | there | dart | search | | curd | urge |
| | pare | ware | mart | | blur | gird | verge |

Words Representing—Four (Continued).

| | | | | | | | |
|--------|-------|--------|-------|--------|-------|-------|--------|
| | curt | squirt | stern | sworn | serve | jerk | thirst |
| curse | blurt | wert | turn | thorn | | kirk | worst |
| hearse | dirt | . | urn | torn | curb | lurk | |
| nurse | flirt | learn | yearn | worn | herb | turk | |
| purse | girt | churn | | warn | verb | work | |
| terse | hurt | earn | born | borne | | | |
| verse | pert | fern | corn | | burke | burst | |
| worse | shirt | heron | shorn | curve | dirk | durst | |
| | skirt | learn | horn | nerve | firk | curst | |
| birt | spurt | spurn | scorn | swerve | lurk | erst | |

WORDS REPRESENTING—FIVE.

| | | | | | | | |
|------|--------|--------|--------|--------|--------|---------|--------|
| by | sly | voice | Mike | time | sire | mite | blithe |
| bye | spy | | pike | slime | spire | plight | lithe |
| buy | sty | bride | spike | | squire | right | |
| cry | thigh | bide | strike | gripe | tire | quite | dive |
| dry | tie | chide | | pipe | wire | rite | gyve |
| die | vie | died | fife | ripe | | site | drive |
| lie | try | dyed | knife | snipe | bite | sight | hive |
| fly | why | glide | life | stripe | cite | slight | rive |
| eye | | guide | rife | type | sight | spite | strive |
| pie | ice | hide | strife | tripe | blight | spright | thrive |
| fry | dice | pride | wife | wipe | bright | smite | |
| high | lice | ride | | | bight | tight | guise |
| hie | mice | side | chime | dire | fight | trite | prize |
| nigh | price | slide | climb | fire | height | white | wise |
| my | rice | stride | clime | hire | fright | wight | rise |
| rye | slice | tide | crime | ire | flight | wright | size |
| ply | spice | wide | grime | lyre | kite | write | |
| pry | thrice | cried | line | mire | knight | | bribe |
| shy | trice | | rhyme | quire | night | tithe | scribe |
| sigh | twice | dike | prime | choir | light | writhe | tribe |
| sky | vice | like | thyme | shire | might | scythe | |

WORDS REPRESENTING—SIX.

| | | | | | | | |
|--------|-------|-------|-------|-------|------|-------|-------|
| fix | brick | chick | pick | sick | sex | | fleck |
| six | dick | click | nick | thick | vex | beck | neck |
| mix | kick | lick | prick | wick | next | check | peck |
| sticks | crick | Mick | quick | | text | deck | speck |

Words Representing—Six (Continued).

| | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|
| wreck | dock | stock | pack | egg | | tuck | rig |
| | frock | | quack | dreg | duck | truck | sprig |
| ox | flock | back | rack | keg | buck | | twig |
| box | knock | black | slack | leg | chuck | big | wig |
| fox | mcock | clack | sack | peg | luck | dig | |
| cox | lock | crack | smack | | pluck | fig | |
| | smock | hack | tack | act | puck | jig | |
| clock | rock | jack | track | fact | ruck | gig | |
| block | shock | nack | | tract | stuck | pig | |
| cock | sock | lack | beg | tact | suck | prig | |

WORDS REPRESENTING—SEVEN.

| | | | | | | | |
|--------|---------|-------|--------|--------|-------|-------|--------|
| give | muff | if | | | pest | list | lust |
| live | puff | cliff | ash | bess | test | mist | bust |
| sieve | ruff | skiff | cash | bless | vest | whist | thrust |
| dove | rough | sniff | clash | cess | nest | twist | |
| love | tough | stiff | crash | chess | west | wrist | blush |
| glove | | whiff | dash | cress | jest | | crush |
| shove | chaff | tiff | flash | dress | | cross | brush |
| have | laugh | | gash | guess | bliss | dross | bush |
| | gaff | ass | gnash | less | kiss | foss | flush |
| cough | quaff | brass | lash | mess | hiss | loss | rush |
| off | staff | class | hash | press | this | moss | hush |
| trough | | gas | plash | stress | is | toss | |
| scoff | cleft | glass | rash | | miss | was | huss |
| bluff | left | grass | mash | best | whiz | | fuss |
| buff | theft | has | sash | lest | dish | dust | thus |
| cuff | draft | as | quash | breast | fish | crust | truss |
| huff | draught | lass | slash | crest | wish | trust | us |
| gruff | haft | mass | thrash | guest | | must | |
| luff | | pass | trash | rest | fist | just | |

WORDS REPRESENTING—EIGHT.

| | | | | | | | |
|-------|-------|-------|----------|------|-------|-------|-------|
| hate | grate | prate | straight | brat | mat | spat | base |
| bait | mate | plate | weight | cat | hat | that | brace |
| date | late | sate | freight | chat | pat | vat | case |
| fate | wait | skate | | fat | plat | sat | dace |
| gate | plait | slate | at | flat | rat | yacht | chase |
| great | rate | state | bat | gnat | sprat | | face |

Words Representing—Eight (Continued).

| | | | | | | | |
|---------|-------|--------|-------|--------|-------|--------|--------|
| grace | ale | sprain | reign | pit | cot | slut | make |
| lace | dale | strain | rain | quit | dot | smut | quake |
| mace | bale | gain | rein | slit | clot | strut | rake |
| pace | hail | stain | | split | got | | stake |
| place | bail | swain | aim | spit | hot | chaste | sake |
| race | fail | train | blame | tit | jot | haste | slake |
| space | frail | twain | came | twit | knot | paste | snake |
| trace | gale | vain | claim | whit | not | taste | take |
| | hale | vein | dame | wit | lot | waste | wake |
| aid | jail | wane | fame | writ | plot | | |
| glade | mail | bane | flame | mit | pot | ape | doubt |
| braid | male | blain | frame | | rot | cape | gout |
| blade | nail | brain | game | bet | scot | grape | pout |
| jade | quail | cane | lame | debt | shot | gape | scout |
| lade | rail | chain | name | fret | squat | rape | shout |
| made | sail | crane | tame | get | sot | drape | spout |
| maid | sale | drain | shame | jet | spot | scrape | trout |
| weighed | scale | Dane | | yet | what | shape | |
| shade | snail | fain | bit | let | | tape | bathe |
| raid | stale | feign | fit | net | but | | lathe |
| shade | trail | grain | sit | pet | cut | ache | swathe |
| trade | tale | lain | cit | set | glut | bake | scathe |
| wade | veil | lane | flit | sweat | butt | cake | |
| | vale | main | grit | threat | hut | brake | |
| waif | wail | mane | hit | whet | nut | break | |
| chafe | whale | pain | kit | wet | put | drake | |
| safe | | plain | knit | | rut | flake | |
| | slain | plane | nit | blot | shut | lake | |

WORDS REPRESENTING—NINE.

| | | | | | | | |
|-------|--------|-------|-------|------|------|------|------|
| nine | shine | vine | grind | grin | spin | hymn | |
| bine | Rhine | wine | | in | thin | him | Ben |
| line | sign | whine | bin | inn | twin | limb | den |
| dine | spine | bind | chin | kin | win | skim | fen |
| chine | shrine | kind | din | pin | | slim | glen |
| fine | swine | find | fin | shin | brim | swim | hen |
| kine | thine | mind | jin | sin | dim | trim | ken |
| mine | tyne | hind | gin | tin | rim | sim | men |
| pine | twine | blind | glyn | skin | grim | Tim | pen |

Words Representing—Nine (Continued).

| | | | | | | | |
|-------|--------|-------|-------|-------|--------|-------|--------|
| then | fend | tend | sent | pent | jem | rinse | sense |
| when | friend | trend | dent | rent | hem | since | thence |
| wren | lend | vend | blent | spent | stem | vince | whence |
| | mend | wend | gent | tent | them | | |
| bend | rend | | Kent | vent | | pence | |
| end | send | bent | lent | went | mince | hence | |
| blend | spend | cent | meant | | prince | dense | |



01

ocean
 lotion
 potion
 motion
 notion
 roman
 Onan
 foeman
 joram
 forum
 bowman
 postman
 oakum

02

globule
 boat-hook
 cocoon
 old moon
 old shoe
 so few
 no room

in this manner combine
 words from the single columns

03

holy
 lowly
 pony
 bony
 rosy
 posy
 croaky
 smoky
 mouldy
 trophy

04

homer
 roamer
 polar
 solar
 rower
 mower
 roller
 poker
 ocre
 loafer
 bloater
 voter
 blower
 slower

05

low tide
 hautboy
 post boy
 go by

combine words from the single
 columns

06

moleck
 row lock
 pocock
 kopeck
 poleaxe

combine words from the single
 columns

07

notice
 lotus
 locust
 crocus
 bonus
 Jonas
 knowest
 blowest
 Joseph

roses
 Moses

08

poet
 omit
 bowsprit

combine words from the single
 columns.

09

crowing
 rowing
 sowing
 loaming
 moaning
 groaning
 growing
 showing
 throwing
 going
 token
 omen
 lowing
 towing

10

banjo
 Congo
 Mungo
 sunstroke
 unyoke
 unfold
 untold
 manhole
 control
 console
 compose
 unknown

| 11 | 12 | 13 | 14 | 15 |
|-----------|------------|----------|---------|------------|
| onion | canoe | monkey | hammer | bonfire |
| common | on view | donkey | panther | conspire |
| cannon | lampoon | mummy | banner | annoy |
| gammon | thumbscrew | funny | tanner | comply |
| tom thumb | bamboo | money | runner | convoy |
| humdrum | undo | sunny | gunner | untie |
| mammon | commune | plumtree | camphor | contrive |
| ammon | commute | bandy | lumber | transcribe |
| Canton | compute | handy | number | concise |
| London | manure | sandy | amber | confide |
| undone | unsure | dandy | rambler | compile |
| quondam | Canute | brandy | angler | transpire |
| random | uncouth | humbly | tumbler | umpire |
| sandon | tom-fool | comely | banker | comprise |
| hangman | | honey | canker | unwise |
| hansom | | bonny | planter | conjoin |
| phantom | | shanty | thunder | sometime |
| bantam | | Dante | blunder | sunrise |
| luncheon | | sunbeam | slumber | one eye |
| unction | | | Humber | |

| 16 | 17 | 18 | 19 | 20 |
|-----------|------------|-----------|----------|-----------|
| hammock | handcuff | trumpet | pumpkin | Crusoe |
| compact | handmuff | jampot | famine | shoe-sole |
| transact | canvas | bonnet | nonsense | do so |
| contract | languish | hamlet | contempt | you know |
| connect | anguish | campaign | commence | grew sore |
| concoct | unless | sonnet | condense | blue coat |
| convict | confess | hand rail | coming | Jew wrote |
| transfix | transgress | translate | Blondin | tombstone |
| annex | undress | bondslave | landing | soon home |
| complex | confest | conclave | unkind | |
| convex | contest | cannot | consign | |
| conduct | congest | comet | confine | |
| construct | unrest | commit | combine | |
| bannack | consist | complot | consent | |
| ransack | ambush | bandit | content | |
| comeback | conquest | champagne | contend | |
| context | congress | landscape | humming | |
| chronic | fondness | unsafe | summing | |
| frantic | punish | convey | running | |
| antic | honest | complain | | |

| 21 | 22 | 23 | 24 | 25 |
|---------|------------|--------|---------|-----------|
| stewpan | jujube | tureen | ewer | schoolboy |
| durance | Zulu | beauty | newer | new toy |
| human | blue-book | duty | rhubarb | unite |
| Newland | boot-hook | sooty | Tudor | moonlight |
| Ulan | true blue | gloomy | tutor | new light |
| truant | new shoe | roomy | fewer | blue eye |
| truman | new rule | coolie | purser | rook pie |
| Newton | new school | ruly | surer | goose oil |
| Teuton | new moon | duly | bloomer | newsboy |
| Susan | too soon | purely | ruler | July |
| Soudan | | surely | curer | fruit pie |
| | | fury | future | look high |
| | | Jewry | pewter | |
| | | jury | neuter | |
| | | Susy | brewer | |
| | | puny | bugler | |
| | | fusee | humour | |
| | | booby | tumour | |
| | | Lucy | lucre | |
| | | ruby | suitor | |

| 26 | 27 | 28 | 29 | 30 |
|------------|-----------|-----------|----------|----------|
| shoeblack | tourist | cruet | student | negro |
| blue frock | Jewess | snet | roofing | Defoe |
| ennuch | Suez | curate | ruin | Creole |
| tunic | Judas | duet | soothing | below |
| new dock | lewdness | roulette | shooting | bemoan |
| music | rudeness | humane | brewing | reproach |
| screwjack | toothless | moonlit | looking | reload |
| boot jack | shoeless | look out | prudent | bespoke |
| Lubeck | Lucas | book case | prudence | revoke |
| rubric | mucous | shoe lace | pew rent | behold |
| | mulish | crusade | bruin | elope |
| | foolish | unit | new inn | remote |
| | fruitless | | stewing | devote |
| | prudish | | supine | denote |
| | roofless | | | depose |
| | Rufus | | | repose |
| | ruthless | | | |
| | brutish | | | |
| | sootish | | | |

| 31 | 32 | 33 | 34 | 35 |
|---------|-----------|-----------|------------|---------|
| besom | beetroot | seaweed | cigar | beehive |
| reason | tree root | seabeach | debar | derive |
| season | Hebrew | beseech | cedar | deride |
| began | bedew | beefsteak | regard | beside |
| Sedan | review | easy | reaper | seaside |
| trepan | renew | repeal | cheaper | decide |
| remand | pea soup | reveal | keeper | Sepoy |
| demand | resume | redeem | sleeper | decry |
| recant | rebuke | degree | peeper | defy |
| Besant | seclude | decree | creeper | deny |
| beyond | prelude | deceive | dreamer | defile |
| belong | elude | believe | steamer | beguile |
| seaman | delude | receive | preacher | revile |
| Leman | seduce | retrieve | teacher | desire |
| benumb | reduce | defeat | Cæsar | retire |
| become | recluse | deceit | depart | delight |
| begun | repute | retreat | sweetheart | recite |
| demon | refute | decrease | return | divide |
| treason | recruit | release | tea urn | revive |
| deacon | dilute | between | beware | deprive |

| 36 | 37 | 38 | 39 | 40 |
|----------|-----------|---------|----------|------------|
| peacock | giraffe | teapot | sealskin | barrow |
| seasick | Freeshalf | besot | mealtin | harrow |
| beeswax | enough | create | feeling | narrow |
| relax | rebuff | debate | peeling | sorrow |
| detract | depress | relate | kneeling | morrow |
| enact | redress | regret | begin | corrode |
| react | repress | beset | heaping | forebode |
| refract | refresh | beget | beating | fortold |
| detect | bequest | emit | keeping | morose |
| deject | detest | refit | reading | forego |
| object | digest | debase | eating | foreknown |
| erect | divest | retrace | sleeping | foreshow |
| elect | request | deface | reaping | o'erthrown |
| reflect | Remus | bewail | leaping | burrow |
| reject | Demas | regale | creeping | furrow |
| select | desist | retail | reeling | borrow |
| deduct | resist | degrade | healing | charcoal |
| be quick | repast | detain | resign | Marco |
| prefix | | refrain | repine | |
| Eric | | regain | behind | |
| | | remain | remind | |
| | | | decline | |

| 1 | 42 | 43 | 44 | 45 |
|----------|----------|----------|---------|------------|
| organ | harpoon | Turkey | warder | tortoise |
| Morgan | curfew | murky | garter | porpoise |
| Jordan | pursue | dirty | tartar | perspire |
| fortune | perfume | darkey | mirror | foresight |
| Horton | forsook | perceive | order | survive |
| Norton | partook | foresee | horror | surprise |
| Gorton | permute | sherry | larder | surmise |
| Mordaunt | pursuit | perry | further | airtight |
| pardon | hirsute | berry | father | fair-fight |
| Larum | forsooth | bury | Martha | Carlisle |
| person | foreknew | sorry | murder | Carlyle |
| parson | cartoon | Orry | murmur | turmoil |
| arson | Khartoum | curtsey | farmer | purloin |
| carman | Gertrude | party | harbour | sirloin |
| carrion | | hearty | porter | fortnight |
| baron | | orgal | barter | |
| Sharon | | firtree | charmer | |
| | | | swearer | |
| | | | bearer | |
| | | | border | |

| 46 | 47 | 48 | 49 | 50 |
|----------|----------|-----------|----------|------------|
| burdock | carcass | carpet | curtain | milestone |
| garlic | Argos | target | firkin | limestone |
| arrack | heiress | forget | certain | Shiloh |
| correct | fairest | cornet | virgin | tyro |
| perplex | arras | forgot | hairpin | toyshow |
| perfect | cuirass | harlot | perkin | by road |
| lyric | morass | hermit | jerkin | high road |
| Herrick | surpass | carrot | tearing | sly rogue |
| Garrick | forecast | parrot | airing | my own |
| Carrick | caress | Charlotte | bearing | Tyrone |
| barrack | arrest | hornet | wearing | high-flown |
| Arctic | purchase | market | curling | Milo |
| forelock | furnish | ferret | furling | fly-blown |
| verdict | forgive | arcade | hurling | iceboat |
| | forest | parade | whirling | |
| | nervous | persuade | goring | |
| | careless | pervade | soaring | |
| | hairless | ordain | pouring | |
| | Marcus | forsake | snoring | |
| | persist | partake | working | |
| | | curtail | shirking | |

| 51 | 52 | 53 | 54 | 55 |
|---------|-------------|-----------|----------|-------------|
| lion | toybook | ivy | tiger | lifebuoy |
| Zion | high school | tidy | rider | high tide |
| syphon | boy blue | wily | spider | fire side |
| pliant | high stool | icy | cloister | fire-light |
| finance | sky blue | tiny | oyster | sky-light |
| tyrant | wild goose | sprightly | riper | bright-eyed |
| hydrant | typhoon | nightly | viper | bright-side |
| iron | high pew | Pliny | piper | night-light |
| Ireland | tight shoe | briny | crier | fire-fly |
| island | | slimy | liar | bye by |
| Hilam | | spicy | cider | childlike |
| Hiram | | knightly | wider | typhoid |
| Byron | | brightly | biter | side-light |
| Simon | | oily | writer | |
| bison | | Riley | nitre | |
| poison | | miry | mitre | |
| | | fiery | lighter | |
| | | wiry | fighter | |
| | | shyly | snider | |

| 56 | 57 | 58 | 59 | 60 |
|------------|-----------|------------|-----------|------------|
| knife box | whitewash | pilot | trident | echo |
| climax | ibis | Pilate | silent | Wicklów |
| direct | digest | pirate | dying | cockroach |
| shylock | Irish | riot | lying | black hole |
| firelock | stylish | Wyatt | spying | big toe |
| dry dock | pie crust | Myatt | crying | expose |
| high rock | Cyprus | fiat | buying | dog-rose |
| my frock | Cyrus | white bait | sighing | pig's-nose |
| wild hog | cypress | white hat | prying | coxcomb |
| sly dog | Titus | my lot | biting | big stone |
| dry sticks | eye lash | lie late | fighting | explode |
| high back | my love | dry mat | lighting | foxhole |
| | thy love | fly at | slighting | |
| | Midas | high way | blighting | |
| | Silas | by way | firing | |
| | pious | high day | hiring | |
| | bias | by lane | | |
| | joyous | climate | | |
| | joyless | | | |
| | eyelash | | | |

61
 packman
 auction
 faction
 action
 Dixon
 fiction
 Stockton
 Buxton
 Caxton
 diction
 Lackland
 black swan
 wigwam
 succumb
 expunge
 expand
 expanse
 extant
 dockman
 blackstone

62
 cuckoo
 excuse
 exclude
 exude
 exhume
 accrue
 big shoe
 frog stool
 log book

63
 jockey
 cockney
 figtree
 exceed
 succeed
 duckweed
 buckbean
 lucky
 plucky
 ugly
 lackey
 blackey
 Hackney

64
 cracker
 backer
 thicker
 wicker
 bicker
 flicker
 Procter
 doctor
 vigour
 figure
 nigger
 beggar
 bigger
 liquor
 wrecker
 rocker
 mocker
 knocker
 blacker
 picture

65
 necktie
 pig sty
 black eye
 bagpipe
 black pipe
 big light
 big kite
 big toy
 cock fight
 thick night
 dog fight
 exile
 excite
 acquire
 expire
 exploit

66
 pickaxe
 picklock
 Pickwick
 picnic
 extract
 quick stick
 exact
 expect
 neglect
 knickknack

67
 Bacchus
 access
 aggress
 success
 express
 exist
 accost
 exhaust
 legless
 Skegness
 luckless
 jackass
 flagstaff
 Macduff

68
 bucket
 locket
 rocket
 pocket
 wicket
 cricket
 ricket
 picket
 socket
 bracket
 racket
 packet
 drugget
 nugget
 acquit
 exit
 jacket

69
 chicken
 licking
 kicking
 picking
 extent
 extend
 accent
 expense
 fixing
 mixing
 stocking
 mocking
 knocking
 shocking
 cackling
 Dickens

70
 lasso
 disrobe
 disown
 dethrone
 aslope
 discourse
 dispose
 disclose
 bestow
 crossroad
 Castro

| | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 71 | 72 | 73 | 74 | 75 |
| pheasant | costume | coffee | quiver | sapphire |
| lesson | mushroom | toffee | treasure | bastile |
| Weston | mistook | pussy | measure | assize |
| ration | misrule | fussy | pleasure | aside |
| vision | dispute | lassie | Esther | astride |
| mission | misuse | Cassy | jester | descry |
| passion | disused | dizzy | lesser | espy |
| bastion | disproof | rusty | master | dislike |
| fashion | assume | dusty | castor | pastime |
| distant | assure | musty | faster | aspire |
| distance | askew | disease | plaster | esquire |
| cousin | eschew | displese | presser | affright |
| cushion | astute | cashier | wrestler | disguise |
| fustian | buffoon | austere | Hussar | chastise |
| fishpond | | esteem | river | Castile |
| question | | blaspheme | giver | |
| rostrum | | trustee | never | |
| nostrum | | lessee | ever | |
| | | | liver | |
| | | | lover | |
| 76 | 77 | 78 | 79 | 80 |
| hassock | mastiff | musket | muffin | motto |
| physic | fastness | basket | coffin | grotto |
| mystic | vastness | casket | coughing | pithole |
| rustic | moustache | russet | laughing | attone |
| cassock | Christmas | rough it | Ruskin | gritstone |
| cossack | massive | buffet | muslin | whetstone |
| distract | passive | covet | assign | cat's-paw |
| dissect | fishes | rivet | design | hat show |
| suspect | Cræsus | estate | javelin | rat hole |
| Chiswick | possess | mistake | passing | hot coal |
| snuffbox | discuss | biscuit | pushing | hot roll |
| caustic | distress | essay | rushing | kitto |
| Essex | misgive | dismay | crushing | cato |
| Sussex | assess | display | blessing | May-pole |
| | assist | astray | pressing | |
| | dismiss | escape | loving | |
| | distrust | assail | living | |
| | disgust | cascade | giving | |
| | crevice | disdain | scoffing | |
| | mischief | | having | |

| 81 | 82 | 83 | 84 | 85 |
|----------|-----------|--------|---------|------------|
| hatstand | pothook | settee | grater | potboy |
| cotton | spittoon | city | greater | Lot's wife |
| Hatton | attune | pity | prater | foot light |
| Watson | tattoo | ditty | nature | attire |
| bottom | statute | Kitty | cutler | satire |
| atom | footstool | witty | butler | nut oil |
| button | | Patsy | waiter | cat eye |
| Sutton | | Betsy | traitor | daylight |
| nation | | petty | potter | |
| station | | jetty | butter | |
| Briton | | putty | better | |
| matron | | Paley | fetter | |
| bacon | | daily | letter | |
| patron | | daisy | hatter | |
| Satan | | crazy | matter | |
| Laban | | lazy | fitter | |
| Haman | | | litter | |
| cayman | | | bitter | |
| Rutland | | | platter | |
| Jutland | | | | |

| 86 | 87 | 88 | 89 | 90 |
|----------|-----------|-----------|----------|-----------|
| hatbox | mattress | hatchet | patten | window |
| mattock | lettuce | latchet | kitten | winnow |
| Attock | lattice | cadet | mitten | enetroach |
| attract | atlas | catgut | bitten | Pinto |
| attack | cutlass | what-not | written | minnow |
| lay cock | footless | tit-bit | batten | enrobe |
| hay cock | buttress | chit-chat | tatting | enclose |
| hay rick | gratis | maintain | Latin | enfold |
| mattock | cut glass | attain | matin | enroll |
| | hatless | pay day | satin | enthroned |
| | tasteless | May day | latent | invoke |
| | races | | patent | in hope |
| | faces | | knitting | inwove |
| | laces | | fitting | impose |
| | Cadiz | | flitting | pinfold |
| | | | spitting | limbo |
| | | | betting | |
| | | | setting | |
| | | | getting | |
| | | | wetting | |

| 91 | 92 | 93 | 94 | 95 |
|-----------|-----------|---------|-----------|----------|
| lemon | hymn-book | penny | fender | penknife |
| Kenyon | entomb | Jenny | Endor | imbibe |
| pinion | ensue | finny | sender | inscribe |
| minion | imbrue | dimly | gender | entice |
| Minton | inhume | simply | lender | invoice |
| Lincoln | Hindoo | wintry | vendor | imply |
| mention | impute | gentry | tender | inside |
| tension | induce | entry | timber | insight |
| Fenton | include | sentry | splendour | indite |
| Benson | intrude | tiny | swimmer | in time |
| Henson | immure | finely | singer | in rhyme |
| pension | insure | timely | ringer | |
| tympan | inure | blindly | dinner | |
| Hinnom | | kindly | thinner | |
| rimmon | | Lindley | winner | |
| enchant | | Henley | summer | |
| encamp | | empty | enter | |
| entrance | | plenty | fender | |
| ding dong | | indeed | cinder | |
| | | impede | tinder | |

| 96 | 97 | 98 | 99 |
|---------|----------|----------|----------|
| mimic | windless | linnet | engine |
| inflict | Indies | minute | linen |
| insect | tennis | gimlet | winning |
| induct | finish | ingrate | swimming |
| hemlock | thinish | inmate | sinning |
| chymic | limbless | Bennett | trimming |
| Kendric | sinless | emmett | Linden |
| inject | endless | embrace | grinning |
| inspect | gymnast | invade | singing |
| inflect | Indus | engage | ringing |
| intact | inmost | enrage | swinging |
| index | hindmost | impale | lending |
| syntax | | inhale | bending |
| | | entail | ending |
| | | in vain | wending |
| | | enchain | sending |
| | | in haste | rending |
| | | in grave | |
| | | inlay | |
| | | limit | |

| | | |
|------------------|--------------------|-------------------|
| 101 commotion | 170 phantoscope | 286 rheumatic |
| 103 canopy | 171 confession | 294 book-binder |
| 104 composer | 173 honesty | 297 looking-glass |
| 108 annotate | 174 ancestor | 300 creosote |
| 109 anodyne | 176 fantastic | 301 decorum |
| 111 companion | 177 compasses | 306 heroic |
| 114 commander | 178 confiscate | 307 ferocious |
| 115 canonise | 179 punishment | 310 piano |
| 117 wantonness | 181 plantation | 311 presumption |
| 118 cannonade | 183 committee | 314 decanter |
| 119 commandment | 184 translator | 316 pedantic |
| 121 conclusion | 191 convention | 321 delusion |
| 127 conducive | 194 condenser | 324 seducer |
| 128 amputate | 197 drunkenness | 327 delusive |
| 129 concubine | 198 compensate | 330 merino |
| 130 antidote | 199 contentment | 331 medium |
| 131 champion | 214 cucumber | 333 deity |
| 132 ante room | 216 pneumonic | 334 redeemer |
| 133 vanity | 224 tubular | 335 petrify |
| 134 monitor | 227 scrupulous | 337 tedious |
| 135 antichrist | 230 studio | 338 mediate |
| 137 handicraft | 231 Puritan | 339 requiem |
| 138 candidate | 233 Jubilee | 340 wheelbarrow |
| 139 continent | 234 Juniper | 341 desertion |
| 140 thunderbolt | 235 stupefy | 342 departure |
| 141 conversion | 236 crucifix | 343 scenery |
| 142 kangaroo | 237 furious | 344 reporter |
| 143 canary | 238 muriate | 347 eagerness |
| 144 wanderer | 239 nutriment | 348 demerit |
| 145 drummer-boy | 243 rookery | 349 preferment |
| 146 Antarctic | 244 usurper | 351 defiance |
| 147 handkerchief | 245 supervise | 353 delighted |
| 148 banneret | 247 Eucharist | 354 designer |
| 149 undermine | 249 superfine | 357 decisive |
| 151 annoyance | 267 blue-stockings | 359 refinement |
| 154 lamplighter | 271 musician | 360 sirocco |
| 157 bronchitis | 277 nutritious | 361 prediction |
| 159 handwriting | 280 mulatto | 363 dejected |
| 160 anecdote | 281 duration | 364 reflector |
| 161 complexion | 283 humanely | 367 detective |
| 164 conductor | 284 newspaper | 371 petition |

| | | |
|-----------------|-----------------|-------------------|
| 373 cuirassier | 432 fortitude | 510 night-commode |
| 374 deliver | 433 Pharisee | 511 triumphant |
| 377 delicious | 434 gardener | 513 irony |
| 379 refreshment | 435 Carmelite | 514 highlander |
| 380 stiletto | 436 heretic | 516 gigantic |
| 381 creation | 437 terminus | 541 lighterman |
| 383 degraded | 438 chariot | 543 bribery |
| 384 creator | 439 harlequin | 544 loiterer |
| 386 emetic | 441 martyrdom | 547 boisterous |
| 387 evasive | 443 surgery | 554 fire-lighter |
| 390 memento | 444 murderer | 570 microscope |
| 391 pretention | 447 barbarous | 571 Irishman |
| 393 regency | 448 verberate | 577 righteousness |
| 394 defender | 454 survivor | 581 highwayman |
| 397 relentless | 459 surprising | 584 rioter |
| 399 delinquent | 460 morocco | 587 quietness |
| 400 aeronaut | 461 correction | 589 oil-painting |
| 401 cormorant | 464 character | 591 frying-pan |
| 402 arrowroot | 467 perspective | 597 isinglass |
| 403 argosy | 468 air-jacket | 598 nightingale |
| 404 corona | 471 perdition | 599 fire-engine |
| 405 acrophyte | 474 barrister | 600 piccolo |
| 406 orthodox | 476 sarcastic | 601 explosion |
| 407 corrosive | 478 perquisite | 604 October |
| 408 coronet | 479 nourishment | 605 crocodile |
| 409 heroine | 480 farrago | 607 octopus |
| 410 Toronto | 481 persuasion | 608 acrobat |
| 413 Burgundy | 484 surveyor | 611 backgammon |
| 414 guarantor | 486 carpet-bag | 613 auctioneer |
| 415 circumcise | 489 surveying | 614 seconder |
| 416 sardonic | 491 Birmingham | 615 reconcile |
| 417 organist | 493 certainty | 617 accomplish |
| 418 personate | 494 carpenter | 618 waggonette |
| 419 circumvent | 496 arsenic | 619 recompense |
| 423 perjury | 497 portentous | 621 occupant |
| 424 circular | 499 turpentine | 624 secular |
| 427 garrulous | 503 pioneer | 625 occupy |
| 428 fortunate | 505 idolise | 647 liquorice |
| 429 porcupine | 507 lioness | 649 nectarine |
| 430 torpedo | 508 violet | 651 exciseman |
| 431 artizan | 509 violin | 654 backbiter |

| | | | | | |
|-----|---------------|-----|-------------|-----|--------------|
| 659 | acquirement | 738 | profligate | 830 | petticoat |
| 665 | recognize | 739 | dividend | 831 | aide-de-camp |
| 668 | pickpocket | 741 | fisherman | 832 | attribute |
| 671 | accession | 742 | afternoon | 833 | strategy |
| 673 | sacristy | 743 | raspberry | 834 | gamekeeper |
| 674 | aggressor | 744 | plasterer | 835 | ratify |
| 678 | explicit | 745 | reservoir | 838 | etiquette |
| 680 | octavo | 747 | governess | 839 | alien |
| 681 | dictation | 751 | affiance | 841 | veteran |
| 683 | bigotry | 754 | assigner | 843 | attorney |
| 684 | bricklayer | 759 | assignment | 844 | flatterer |
| 685 | pocket-knife | 761 | destruction | 845 | butterfly |
| 686 | quixotic | 764 | disfigure | 846 | cataract |
| 688 | cricket-bat | 767 | effective | 847 | bitterness |
| 689 | acquitment | 768 | castigate | 848 | favourite |
| 690 | extempore | 771 | discussion | 849 | chattering |
| 691 | extension | 773 | sophistry | 861 | attraction |
| 694 | rocking-chair | 774 | trespasser | 864 | nut-cracker |
| 697 | mackintosh | 777 | asbestos | 867 | attractive |
| 703 | devotee | 779 | assassin | 873 | atmosphere |
| 704 | passover | 781 | cessation | 874 | paymaster |
| 705 | chrysolite | 784 | testator | 875 | satisfy |
| 707 | frivolous | 786 | ascetic | 876 | retrospect |
| 708 | desolate | 787 | crustaceous | 880 | bravado |
| 710 | discompose | 791 | ascendant | 884 | attainder |
| 711 | husbandman | 793 | assembly | 891 | attendance |
| 713 | peasantry | 794 | messenger | 893 | patentee |
| 717 | astonish | 797 | cavendish | 897 | attentive |
| 718 | esplanade | 798 | fascinate | 902 | introduce |
| 723 | refugee | 801 | ottoman | 903 | crinoline |
| 724 | muscular | 806 | rhetoric | 904 | inclosure |
| 726 | bivouac | 808 | bayonet | 907 | cenotaph |
| 727 | Esculus | 810 | button-hole | 908 | renovate |
| 728 | rivulet | 813 | vacancy | 909 | indolent |
| 730 | mosquito | 814 | stationer | 910 | incommode |
| 731 | covenant | 815 | patronage | 911 | injunction |
| 732 | destitute | 816 | atlantic | 913 | chimpanzee |
| 733 | destiny | 821 | petulant | 914 | pensioner |
| 734 | officer | 824 | ale-brewer | 915 | dynamite |
| 735 | testify | 828 | saturate | 916 | dynamic |
| 737 | precipice | 829 | flatulent | 917 | encompass |

| | | |
|-----------------|----------------|----------------|
| 918 remonstrate | 939 penitent | 964 inspector |
| 919 encumbent | 940 interlope | 967 vindictive |
| 921 infusion | 941 immersion | 970 indispose |
| 923 penury | 942 interlude | 971 impression |
| 924 singular | 943 memory | 973 dynasty |
| 927 strenuous | 944 emperor | 974 impostor |
| 928 stimulate | 945 enterprise | 976 gymnastic |
| 929 genuine | 946 interdict | 978 implicit |
| 930 envelope | 947 interest | 979 investment |
| 931 mendicant | 948 temperate | 981 sensation |
| 932 institute | 949 insurgent | 984 engraver |
| 933 remedy | 950 embryo | 991 intention |
| 934 vinegar | 953 enquiry | 993 engineer |
| 935 simplify | 954 enquirer | 994 inventor |
| 936 intellect | 959 enlighten | 996 intrinsic |
| 937 pentecost | 961 infliction | 997 incentive |
| 938 imitate | 963 mimicry | |

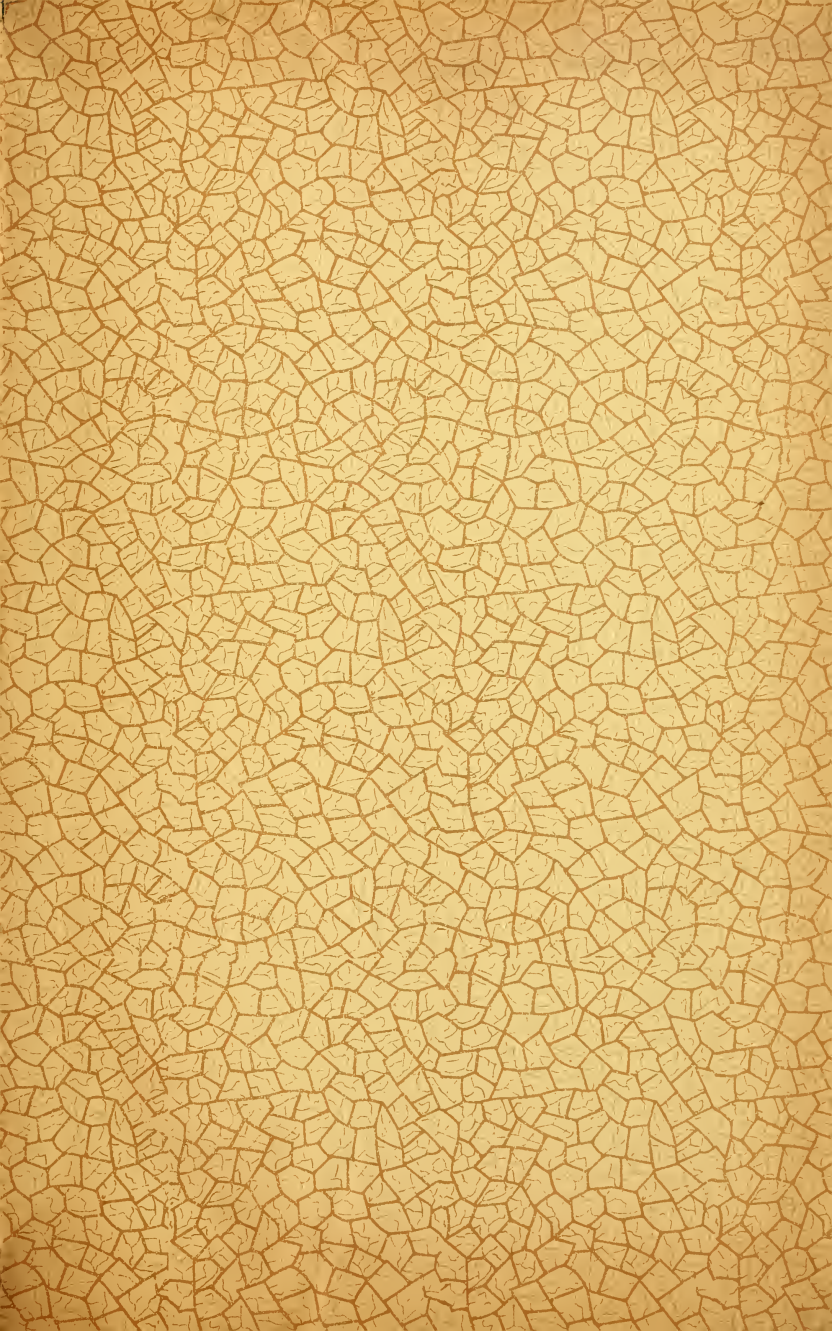


Chemistry
Latin
Literature.

Deacidified using the Bookkeeper process
Neutralizing agent: Magnesium Oxide
Treatment Date: Oct. 2004

Preservation Technologies
A WORLD LEADER IN PAPER PRESERVATION

111 Thomson Park Drive
Cranberry Township, PA 16066
(724) 779-2111



LIBRARY OF CONGRESS



0 013 373 234 2

